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ABSTRACT

A fair number of empirical, scholarly studies of West African languages have been published in the nineteenth and early twentieth centuries. However, the study of West African languages was in these years overtaken and nearly overwhelmed by a racist reaction. In the 1930's linguistics began to assume its substantially modern form and scholars began studying African languages on an equal level with European languages. The relations and interrelations of the languages of West Africa are elaborated on with the intention of dispelling misconceptions about the inferiority of these langauges. African languages on the whole are conservative and change very slowly, yet they have become very diverse. Underlying their great diversity, however, there is a fundamental and elaborate unity which, if explored, will contribute to the development of African social and political unity. A serious need exists for the study of West African languages and for the preparation of grammars, dictionaries, and textbooks. An appendix illustrates the network of linguistic relationships in West Africa through 80 English words whose translation glosses form sets of reciprocal cognate reflexes which appear in the basic vocabularies of several languages. (NCR)

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THE STUDY OF WEST AFRICAN LANGUAGES

An expanded version of

AN INAUGURAL LECTURE

delivered at the University of Ibadan on 20 February 1964

by

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THE STUDY OF WEST AFRICAN LANGUAGES

I

MR VICE-CHANCELLOR, LADIES AND GENTLEMEN, the auspicious occasion of the inauguration of the first research chair of linguistics in a Nigerian University is a good time to look both backward and forward at the whole study of African languages, paying most attention to the 'Niger-Congo' or 'West Sudanic' languages, in which my own field of specialization lies. My backwards look will, however, be brief, since the field has recently been ably covered by my friend Dr Paul Hair[1] and by my friend and colleague, Professor Greenberg.[2] One fundamental observation is that the period of European contact with West Africa more or less coincides with that of the establishment and development of the science of linguistics as such; and African studies contributed to linguistics. It is true that African languages became the objects of race and culture prejudice and that this slowed up the progress of linguistic studies here. Many people, both European and African, developed the attitude that African languages are 'simple'—and if they are not simple they ought to be. Nevertheless, there were some extremely fine studies of African languages carried on, first in the seventeenth century, and then, after a pause, in the nineteenth century, by missionary linguists in the main.

The first Europeans who visited the kingdoms of West Africa seem to have regarded the Africans more or less as equals—non-Christian, to be sure, but also non-Moslem and therefore not a part of the system of enmities that had divided the Mediterranean world for a thousand years. All too soon the slave-trade began, with the Portuguese and subsequent traders bargaining with African potentates as equals for their human cargoes. The effect of the slave-trade on the attitudes of the Europeans and Africans who engaged in it is too complex a matter to deal with here. I content myself with expressing my opinion that the system of race pre-

judice in America and Europe had its basic, sociological origin in the slave-trade. Most people cannot enslave their neighbours unless they can persuade themselves that the victims are less than human. The seventeenth century saw a few serious attempts to study and write on West African languages, the most important being Fr. de Gheel's dictionary and Fr. Brusciotto's grammar of KiKongo.[3] By its end, however, the racial prejudice of Europeans had become so strong as to preclude any great interest in what Negroes thought or said. The whole eighteenth century saw little development of the study of African languages, but it was marked by the ascendancy of Britain and Europe and by the Industrial Revolution within Britain. One result of this was the development of the idolatrous worship of European things and European symbols—a cult whose first devotees were the Europeans themselves, followed close behind by a great and motley crowd of people on every continent who had come to a greater or lesser extent under European economic, political, and hence cultural influence. European dress became the hallmark of civilization; European languages were made the model of elegance in speech: popular European prejudice and superstition in artistic matters became the banner under which, in West Africa, one of the really great artistic traditions in the world has been more than half destroyed. (It should be noted that really informed European thought on art has not to this day been available to African schools and universities.) These attitudes are quite natural folk-reactions to the Industrial Revolution which made modern science possible, including linguistic science.

In the mid-nineteenth century, a solid beginning on the study of West African languages was made by the missionary groups in Freetown and other places, notably Senegal, where there was considerable interest in the study of Wolof and Fula. Manessy and Sauvageot list fifty-five works on Wolof between the years 1732 and 1898,[4] and Labouret lists eighteen works on Fula between the years 1841 and 1894.[5] The most notable publication of this period was Koelle's great *Polyglotta Africana*[6], which still serves as part of the basic documentation of West African languages. Koelle also did excellent and careful studies of Vai (Sierra Leone and Liberia) and Kanuri (Nigeria). A graduate of Fourah Bay College, Freetown, Samuel Ajayi Crowther (later Bishop) became the first African

to study West African languages on a large scale. He did a grammar and dictionary of Yoruba, his own language, and translated part of the Bible into Yoruba. He and his students, all graduates of Fourah Bay College, published works in Igbo, Igbira, Nupe, Igala, and Ijo. While accompanying Dr Baikie on his Benue River expedition in 1854, Crowther took (and later published) excellent wordlists of Tiv and of one of the Arago dialects of Idoma. In the Gold Coast, Christaller, a German missionary with linguistic training, published a Dictionary (1874) and Grammar (1875) of Twi[7] which are the foundation of modern Twi studies. He successfully analyzed the Twi tone system—an astonishing feat for his day, which we are only now beginning to appreciate. One should also mention the work of Westermann, Spieth, Spiess and other German missionaries in Togo for their deep and scholarly studies of Ewe and neighbouring languages, in the decade before the First World War; and H. Goldie's *Principles of Efik Grammar*, (Edinburgh: 1868) and *Efik Dictionary*, (Glasgow: 1874) belong on any short list of early works on the Guinea Coast languages, as do Meinhof's works on Cameroons languages and his studies of comparative Bantu phonology.

This list is by no means exhaustive. There were a great many lesser works on these and other languages published. In other words, considering the whole state of linguistics during the nineteenth and early twentieth centuries, quite a fair number of empirical, scholarly studies of West African languages were published in that period. And the quality of these works compares very favourably with that of similar studies in other parts of the world, except where, as in India, the linguists were building on an established and ancient scholarly tradition.

Despite all this sober industry, the study of West African languages was in these years overtaken and nearly overwhelmed by a racist reaction. The great majority of the Europeans who came to Africa accepted it as axiomatic that the Negro peoples were incapable of inventing or producing anything interesting, subtle, or complex. When, therefore, interesting, subtle and complex things were found in such places as West Africa (or for that matter Uganda or Ruanda-Burundi or Southern Rhodesia), the problem of 'science' was to discover from what place outside of

Negro Africa it had come and what 'white' people had brought it there. The history of this state of mind and of the so-called 'Hamitic Hypothesis' which developed out of it has been described very well by Prof. St. Clair Drake,[8] and I shall not repeat it here. Suffice it to say that many European and not a few African writers have attributed to the 'Hamites' the role of the great civilizers of the indigenous, Negro farmers of Africa. Some have regarded the 'Hamites' as sun-burned 'whites', others have regarded them as the black descendants of Ham, the son of Noah. According to the well-known story in Genesis, Ham came upon his father lying naked and drunk; instead of dutifully averting his eyes, he stared at him. For this unfilial behaviour he and all his descendants were cursed and ordered to be 'servant of servants unto your brethren' by Noah, when the latter woke up ('With a hangover', as my Baptist colleague, the Rev. Mr Samuel Williams, Professor of Philosophy at Morehouse College, Atlanta, has pointed out). From this point, the story divides into several channels, like the mouths of the Niger in the Delta. In the Arabic versions, Ham's descendant, Nimrod, or Namuradu, fought against Abraham, and for this and various other sins he and his descendants were turned black and became the Negro peoples. According to the Biblical version, Egypt (Misra) was one of the descendants of Ham, and this is the point of origin of the stories attributing whiteness to the 'civilizing Hamites' in Africa. More recently Cheikh Anta Diop, of Dakar, has tried to argue that his native language, Wolof, is derived from ancient Egyptian and that Egypt was a Negro kingdom.[9] Lying at the crossroads of Europe, Asia and Africa, Egypt has certainly always been racially mixed; and anyone trying to prove some racial point about it can usually select out enough evidence to convince himself.

It goes without saying that no professional anthropologist has ever taken these stories as such seriously. The only reason for bringing them up is that they make evident the feebleness of the evidence underlying some theories which have been taken quite seriously. The most widely believed of these has been the idea that Fula or Fulani, is 'not a Negro language' and is instead 'Hamitic' or 'Pre-Hamitic' (to use Meinhof's term). This has been a part of the whole attempt to 'prove' that the Fula are a race apart and superior to the other West Africans. The most influential book on

this matter was Meinhof's *Die Sprachen der Hamiten*,[10] which is a comparative study of Fula, Hausa, Schilh, Bedauye, Somali, Masai, and Nama, in that order, and which attempts to show that they are all 'Hamitic' languages. Meinhof's attitude is clearly set forth in the second paragraph of his Foreword:

> 'I hope that two thoughts will gain ground through my presentation. The first is that the languages of the real Nigritics, the "Sudanic Languages", as I call them, in agreement with Westermann, are wholly different from the languages of the light-skinned, curly-haired Africans, even though many mutual influences are present. The second is that the languages of the light-skinned, curly-haired races, despite all differences and all influences from Sudanic languages and Bushman languages, still have so much in common that one can conceive them as belonging together.'[11]

It is quite characteristic of the period that the book ends with a chapter on racial types and eleven pages of photographs which attempt to contrast 'Hamitic' and 'Negro' types.

It should be noted that these views did not go uncriticized. In the very year of publication of Meinhof's book, Hestermann published a series of articles on the alternation of initial consonants in Serer. He showed that Serer has an elaborate version of the very feature which had seemed most peculiar to Fula. He comments, 'Meinhof has already erected a theory on it, which, however, is of a sort indeed that is deduced only from Fula, but which does not consider whether it also explains the facts which appear in other languages which are obviously of the same origin, or whether these must be explained otherwise.'[12]

I understand that when Sapir reviewed Meinhof's book in 1914, he expressed serious doubts regarding its treatment of Fula. I have not yet been able to find this reference, however. (I wish it to be quite clear that I single out Meinhof's views not because of any special animus against him, but because of the great influence which his ideas have had and because of his pre-eminent status as a linguist and Africanist. If one can refute him in this respect, one has thereby refuted a host of lesser authors. His Bantu studies are a basic cornerstone of Africanist linguistics and in fact shed a great light on West African languages. See the appendix to this lecture,

where I have drawn heavily on Meinhof's Proto-Bantu reconstructions and on those of his student, Bourquin.)

European admiration of the Fulani knew no bounds. Thurnwald, for example, was an extremely sophisticated anthropologist, but he let himself publish this lyrical effusion about the Fulani in his great work *Die Menschliche Gesellschaft:*

> 'These master-men, living rather like "lone-wolves", stand abrupt and alien among the agricultural Negro tribes, the typical collective-man, who only live inside their clans.... Among the herdsmen personal bravery, courage and a conscious valuing of initiative and of enterprising spirit were thrust to the foreground as desirably human qualities. This enabled them, in the various kinds of conflicts with the peasants and the peasant organizations to raise themselves to be their leaders.'[13]

More recently Kurt Wolff wrote in the Thurnwald *Festschrift:*

> 'What reason led a part of the Fulani to political activity? Three factors worked together in this. In the first place it was the consequence of Islamization. Then there was the inclination of particular Fulani to meditation (which complemented Islam) and to the resulting superiority of spirit and character over the Negroes. This capacity for thinking through the problems of Heaven and Earth in a manner and form diametrically opposed to that of the Negroes created for particular Fulani a special and, in time, mighty position....'[14]

I think it safe to say that neither Thurnwald nor Wolff had any serious first-hand acquaintance with the Fulani.

The general tone of these passages is readily matched in the writings of eminent French and British scholars. Labouret, the author of two useful works on the Fula language, tries to derive the Fula from the area to the north of Ethiopia.[15] F. W. Taylor writes, 'From its wealth of vocabulary, its sonorous diction and the delicate shades of meaning it can express, I certainly do not think (Fulani) belongs to the Sudanic family.'[16] His implict view that the Sudanic languages are poor in vocabulary, ill-suited to poetry and oratory, and unable to make fine distinctions of meaning is refuted by the whole work of the past century of West African

linguistics—a fact which takes nothing away from the excellence of Fula. The work of Spieth, Griaule, Dieterlen, Herskovits, Rattray, and many others has shown that the Negro peoples of West Africa think deeply and interestingly about 'the problems of Heaven and Earth'[17].

Finally, it should be said that the intellectual virtues of the Fulani should be credited to the Negro account at least as much as to the White. There is actually no great mystery about the origin of the Fulani. They were in the first instance a fairly typical Negro-African agricultural people in the valley of the middle Senegal River, and are known generally as Toucouleur (Arabic Tekrur). They call themselves Halpularen, 'those who speak Fula' (Pular). Through the centuries they were infiltrated by cattle-keeping Berber groups from the area immediately to the north, and these passed on to occupy the Ferlo plateau, to the south and west of the river. The nomadic Berbers established a valuable exchange relationship with the politically more advanced agricultural Fulani of the river valley and in the end adopted their language. The process was substantially complete by the time the first extant historical documents on the area were written, about a thousand years ago. As will be seen below, the linguistic evidence is quite conclusive that the Negro section of the Fulani is the basic, original section and that the Berber section has joined it later. As Delafosse and, more recently, Murdock point out, it is the Negro Fulani who have been staunch, proselytizing Moslems, noted state builders, and articulate ideologists and writers. The cattle Fulani, despite their more 'European' look, have always had a much more rudimentary economy and political structure and have been indifferent Moslems; and they have even not infrequently been pagans.[18]

I think that it can be said that it was in the 1930's that linguistics finally came of age and assumed its substantially modern form. Crucial in this respect was the work of such men as Prince Trubetskoy and the Cercle Linguistique de Prague, Firth in England, de Saussure in France, and Sapir and Bloomfield in the United States. American linguistics developed enormously and very fruitfully through its study of the American Indian Languages. The beginning of American interest in African languages can be

seen in the work of Prof. and Mrs Herskovits in Fon, the language of Dahomey, and in Greenberg's work in Hausa, in the late 1930's. After the Second World War, this development began again with renewed vigour. In 1949, two linguists, Greenberg in the United States and Olderogge in the Soviet Union, mounted a direct attack on the Hamitic 'status' of Fula. Greenberg's work was based largely on lexical comparisons between whole groups of languages, backed up by as much attention to morphology and syntax as the state of the literature permitted.[19] Olderogge's argument is more of a review of the linguistic literature.[20] Greenberg pointed out that the relationship of the West Atlantic sub-family to the main family of Sudanic languages (re-named 'Niger-Congo' by him) has never been questioned. He then proceded to demonstrate the close relationship of Fula to Serer and Wolof, which are well-known West Atlantic languages, thereby demonstrating its own membership in the West Atlantic sub-family of Niger-Congo. This proven, it follows as a matter of course that Fula is related more distantly but definitely to the Kwa languages, including Twi, Yoruba, and Igbo, and to the Bantu languages, as well as to the Mande languages and the Gur languages. Olderogge and Greenberg both cite an old article of Klingenheben's, "*Die Permutationen des Biafada und des Ful*", which had gone almost unnoticed when it appeared in *Zeitschrift für Eingeborenensprachen*,[21] in 1924. In this article, Klingenheben shows that the most unique and arbitrary feature of Fula, the consonant permutation system, is matched point for point in the Biafada language, spoken by the isolated fishing peoples on the islands off the coast of Portuguese Guinea and whom nobody was *ever* tempted to call 'Hamitic'. Olderogge comments, 'With these discoveries, any attempts to see a "Proto-Hamitic language" in Fula are destroyed. It is now necessary to include it in the list of languages of the Western Sudan.'[22] (It is interesting to note that Klingenheben says it was Northcote Thomas who drew his attention to the importance of Biafada. (Op. cit. p.180))

In 1952, Westermann, then the dean of Africanist linguists, published a long review article discussing Greenberg's recent work. In it he said:

> 'Meinhof, a few years before the publication of my book, in his *Sprachen der Hamiten*, had included Fulani as a Hamitic

or Proto-Hamitic language; and so I preferred not to touch this matter. Greenberg shows conclusively the close interrelation between Serer and Fulani and places it among the West Atlantic group of Western Sudanic class languages. Exactly the same thing had been done before by Delafosse with regard to Wolof, which is likewise closely allied to Fulani. . . . The fact that Fulani is equally related to Wolof and to Serer shows its true place: it has nothing to do with Hamitic languages.'[23]

Most recently, Klingenheben, in publishing his life-long study of Fula in a very fine new edition, says in the Foreword, 'The hypothesis propounded by Meinhof in various works including his *Sprachen der Hamiten*, Hamburg 1912, that "Fula is probably the oldest form of a Hamitic language accessible to us", for which reason he named it "proto-hamitic", has not stood up, since its premises rested on insufficient knowledge and incorrect interpretation of the speech forms of Fula.'[24]

I have been at some pains to discuss the history of the study of Fula because the misinterpretation of the position of Fula has been a very disturbing factor in the development of African linguistics. Fula is an important language with five million speakers, spread through the savannah country from Senegal to Adamawa; and in many places its speakers or their descendants are dominant politically. It is indeed a very conservative member of the Niger-Congo family; and when this fact was not acknowledged it threw West African linguistics off balance for two generations. (Meinhof recognized that Fula, '...stands very close to Proto-Bantu.' (Op. cit., p.4.) He tried to explain this by saying [p.2], 'I have even come to the conviction that the origin of the Bantu languages is most simply explained thus: that a language similar to Fula came forward as the ruler-language ('*Herrensprache*') among Nigritics, and [that it] assimilated Nigritic vocabulary ('*Sprachgut*') to itself.' One does not need to be a linguist to see how far-fetched this hypothesis is, when in the list of eighty word-roots from the basic vocabulary of the Niger-Congo languages which I cite in the appendix to this address, not less than eleven are common to Fula, Yoruba, Igbo and Proto-Bantu. Even in this short list the beginnings of sound-correspondences are

apparent, (e.g., the 'n' in the words for 'mouth', 'mother', and 'four'[25]).

As a result of the solution of the problem of Fula, one can say that there is now substantial agreement among linguists as to the broad outlines of the sub-families of the Niger-Congo family (or the 'West Sudanic' family, to use Westermann's older term). Greenberg's scheme is much like Westermann's except for terminology, for the fact that a great deal of fresh work underlies it, and for the very important fact that he was free of commitment to older ideas. Going from west to east, both distinguish: (1) the West Atlantic sub-family of more than forty languages in Senegal, Gambia, Portuguese Guinea, Guinea and Sierra Leone. The best known of these are Wolof, Fula, Serer, Dyola, Temne, Kissi, and Limba. (2) The Mande or Mandingo languages in Sierra Leone, Guinea, Liberia, Northern Ivory Coast, Upper Volta and Mali. The easternmost outlier is Busa, spoken at Busa, in Borgu Division of Nigeria. Westermann lists thirty-five languages in this sub-family, and there are certainly more. The best known languages of this group include Soninke, Malinke, Bambara, Susu, Mende, Gio and Kpelle. (3) The Gur languages, which are found in the Republic of Upper Volta, Mali, northern Ghana, Togo, and Dahomey and in the Niger Republic. Some dialects of Bariba, a Gur language, are spoken in Borgu Division of Nigeria. Greenberg lists fifty Gur languages and there are certainly many more. The best known include Senufo, Lobi, Dogon, Grusi, Mõõré, Dagomba, Mamprusi, Kabrè and Bariba. (4) The Kwa languages, which extend along the Guinea Coast from Liberia to the Cross River of Nigeria and inland for about two hundred miles. The West African Languages Survey has a list of sixty-three Kwa languages, but it is far from complete. The best known of the group include Kru, Baulé, Twi, Gã, Ewe, Fon, Yoruba, Edo, Nupe, Igbo, Idoma, and perhaps Ijo and Efik. (Westermann set up a group which he called 'Togo Remnant-Languages'. Greenberg has assigned some of these to the Gur group and the majority to Kwa.) (5) The Benue-Congo languages (Greenberg's term). Other and older names for this group are 'Central Branch' (Greenberg), 'Benue-Cross' (Westermann), 'Bantoid' (Westermann), 'Semi-Bantu' (Johnson). Greenberg's term is more inclusive, since he includes the whole of the Bantu

group as a sub-category of 'Benue-Congo'. Greenberg lists seventy-eight languages in this group, apart from the Bantu languages; and his list is far from complete.

The various figures given above add up to 266 languages (and I do not mean 'dialects'). I think it reasonably safe to say that when the list of the western Niger-Congo languages (exclusive of the Bantu languages) is complete, it will number more than four hundred languages. (This also excludes a large group north of the Congo which Greenberg calls 'Adama-va-Eastern Branch'.) It is characteristic of this whole area that these languages, although genetically related, are deeply divided from each other qualitatively. Of the five sub-families listed, the Mande group is in a class by itself, distinct from all the rest. Westermann thinks that the Gur, Kwa and Benue-Cross (Greenberg's Benue-Congo) sub-families cluster together. This much is not really controversial any more. When we come to the relationship of the Bantu languages to the West African languages, there is still hot argument. Many people find it hard to believe, with Greenberg, that so large and far-flung a group of languages should be regarded as belonging taxonomically to the seventh sub-subsection of subsection 'D' of 'Benue-Congo'—which is where Greenberg classifies 'Bantu'. I shall not go into the technical side of this matter, which is very complex. It does seem to me, however, that the decision turns on the rigour with which one holds to the concepts of comparative linguistics, against the claims of the political importance and geographical spread of a group of languages. It also turns on the question whether or not African languages behave, on the whole, like other languages, or whether they change in essentially capricious ways and readily mix with each other to form 'mixed languages' ('*Mischsprachen*'). I shall simply state my own belief that African languages are in principle very much like other human languages and that on the whole they are very conservative and change slowly. This matter is something that can be studied empirically, despite the scarcity of linguistic documentary evidence of much antiquity. We have a few wordlists and dictionaries which go back as far as three hundred years, and Koelle's *Polyglotta Africana* gives us extensive wordlists for over two hundred languages and about 130 years of time-depth. If we take the trouble to collect the same words

from these languages today, taking care to find the same dialects as those represented in Koelle, we shall have an extensive test of the relative stability of these languages as regards basic vocabulary, that is to say the common, household words which change most slowly. I have made this test with the lists for Oyo Yoruba and for Yala, the Idoma dialect spoken in Ogoja, and I have found that the vocabularies involved show no perceptible change. That is to say that such change as there may be is less than the error of the method and is therefore more plausibly attributed to errors in gathering and recording the data than to lexical change.[26] Another quite interesting piece of evidence is available with respect to Gɛ, a language closely related to Ewe. It is a document called *Doctrina Christiana*, and is reprinted in H. Labouret and P. Rivet, *Le Royaume d'Arda et son évangélisation au XVIIe siécle*, (Paris, 1929). Westermann comments on this as follows:

> 'The "Doctrina Christiana", which is reproduced in this book, is a catechism which was originally published in the year 1658, for missionary purposes, in the Spanish language with a translation into the Gɛ dialect of Ewe, as it is spoken on the Coast of Dahomey. The text, therefore, gives us Gɛ-Ewe from the first half of the seventeenth century. The linguistic competence of the translator was obviously inadequate, and the text can only be understood in part, but it can be stated with certainty that the language has scarcely changed in the last three centuries.'[27]

A good deal more evidence of this kind is available, and it can be seen from it that there has been a tendency to seriously underestimate the time-depths that underlie the present arrangement of languages and groups of languages in West Africa. If we use the controversial method of glottochronology to get some idea of the absolute time, we find that its calculations suggest that Oyo Yoruba and Edo of Benin are separated by 3200 years, if we use Swadesh's equation, and by 4600 years, if we use that of Hattori (which I think is the more likely). Similarly, Yoruba and Igbo are by the same reckoning somewhere between 4000 and 6000 years apart. If we reject these calculations, still we may form some idea by lining up lists of basic words from pairs or sets of languages and then comparing them with corresponding lists

from areas where the history of related languages is well documented. Thus the time distance between modern High German and English may on historical grounds be reasonably set at 1800 years. Igala and Oyo Yoruba are not quite so close together as that, when their basic vocabularies are compared in the same way, so a separation time of about 2000 years is suggested. Yoruba and Edo (Bini) are not so close as Tiv and Zulu, when compared this way. If two languages separated at the time of the Hejira, about 1400 years ago, they should still today resemble each other as much as French and Portuguese do, or Italian and Rumanian. In other words they should have thousands of words whose relationship to each other is so close as to be quite unmistakable. It seems to me that the language ancestral to the Niger-Congo family cannot have been spoken more recently than ten thousand years ago, and that it probably lies much deeper in the past than that.

II

I should like to speak of another aspect of the investigation of African languages, and that is their study in depth. This is a different dimension from the widespread comparative studies which I have been discussing. There is a very serious need for full-scale studies of as many West African languages as possible, with the preparation of grammars, dictionaries and carefully produced bodies of texts. There are many good reasons for this, but I should like to suggest that the fundamental reason for such studies is that of respect for the peoples who speak the languages. To my mind there is no more fundamental aspect of social science and of sound political interaction. If you do not in fact feel respect for the people with whom you are working, they will find you out, for it will show in a hundred ways of which you may not be conscious. Respect for other people—for strange people—is an attitude that most of us must learn, and learn in a school from which we never graduate. Lack of respect for the foreigner is an old tribal attitude which is still deep in us all. Language study works in several ways to help us learn respect. In the first place, the acquisition of even ten words of the language of an isolated people puts you into a class by yourself in

their eyes. They appreciate the effort. In the second place, as you get increasing command of a language, you can have direct, personal contact with more and more people. There is surely no better way of learning to respect people than by getting to know them personally. In the third place, the interpreters available may well speak a kind of English—or Yoruba, or Igbo, or Hausa—that will sound childish to you, both because of faulty syntax and faulty use of words. Little of the subtlety and colour of the original can come through such a translation. Translation of religious, philosophical, legal, poetic and humourous speech is fiendishly difficult even when the translator has a profound grasp of both languages. How shall we learn to respect a people whose really interesting thoughts remain a closed book to us? In the fourth place, scholarly texts and solid, 'complete' dictionaries and grammars are of fundamental importance in the development of powerful comparative studies and hence in the exploitation of the possibility of using the languages as documents of African history. Such deep studies give greatly increased accuracy and delicacy of measurement. If there are five hundred languages in West Africa, and if they have an average of twenty thousand words in their vocabularies, this means that there are ten million words, each with its own history and range of meaning, in West Africa. If we knew them all, we should *know* the history of West Africa. Astronomical figures? Yes; but think what splendid structures of observation, theory and interpretation of the universe the astronomers give us through the close study of their star-charts. Fortunately in language study we do not have to go so far in order to produce results which are worthwhile.

One sometimes hears the statement that it is 'shameful' that a group should have to depend on outsiders to study their languages and that in any case no outsider can do the job properly. Now it is quite true that it takes a foreigner many years of hard work to learn a language as well as the native speakers know it. But there is nothing 'shameful' in his developing a grammar and a dictionary before the native speakers do. It has been so throughout the history of human letters. Nothing is more difficult than to make the fundamental analysis of one's own language unaided.

It has only been successfully done once in history, and that exception is a very qualified one. I speak of the Panini grammar of Sanskrit, written in India about 300 years B.C. And even here one must say that Panini and his colleagues were not describing their native language, but its sacred ancestor which had become a dead language. This was why they wrote their descriptive grammar of it and why they succeeded in their task. Our native language is much too close to us for easy study. It is rather like trying to study one's own eyes! Some people are made nervous at the very idea of the study of so intimate and important a thing as their language. I take the view that what can be studied should be studied and in our day will be studied. We now see Africans taking up the study of linguistics with rapidly increasing interest. Apart from their natural interest in this activity, Africans should become linguists in self-defence, so that any future 'linguistic' racists will not go unanswered!

An example will show the importance of linguistics to ethnography. The work of the late Marcel Griaule and of his students, including Mme Dieterlen, has shown that the Dogon and Bambara, of the upper Niger valley, have a level of religious and cosmological thinking that sets a worthy task for the linguist. I refer in particular to their monograph on graphic signs[28] which represent the various phases and concepts of the Dogon and Bambara cosmologies and express abstractions of such a high level, that, as Griaule says, 'We have difficulty in conceiving of them.'

> 'The Bambara sign connoting the concept "fish" is an assemblage of three elements, each of which stands for a series of 22 classified species; and this classification places at the head eight known fishes, the rest of the list offering first rare species and then those which have not yet appeared.
>
> 'The sign is more than a mark: it is also the precipitate of a myth. The three parts of the preceding sign stand for the first fall of the fish into terrestial water; the relations between the bodies of man and of the silurid catfish; the descent of the impure fish. The commentaries on such a sign by a competent man evoke certain great stages of creation.' (p.6)

The Dogon, Bambara and related peoples attributed such a

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primacy, not to say sovereignty, to the sign that one might sum up their doctrine of creation by saying, 'In the beginning was the sign.' It is by the signs that things exist and achieve consciousness of themselves; it is by the signs—by his analysis of them into their parts—that man comes to understand and control his part of the universe. The meaning of these signs is almost never obvious to the uninitiated. Artistically they are deliberately bland and inconspicuous. It is not expected that more than a few people will understand their deep message.

The origin myths of the Bambara, as reported by Dieterlen, are even more abstract than those of the Dogon. The numerous systems of Bambara writing connote the different states or levels of their knowledge. The first of these systems is the *dyē sira gale*, 'first road of the world'. The second, the *glā glā zo*, is composed of 266 ideograms which form a nomenclature of all things. These signs are intimately connected with the Bambara cosmology; they even preceded the creation of the things which they designate. The things, conceived in the invisible, the not yet realized, received a name and a sign connoting that name before they existed. The word *glā* designates the original empty nothingness and at the same time the ideas of movement, of awakening, of reawakening, of resurrection.

'*Glā*, "full of its emptiness and its emptiness full of itself" extended its power everywhere. It emitted a "voice of emptiness" which created first of all its double, *dya*: *glā* became two, thus marking the primordial, existential character of twinness.' Or as the Bambara put it, '*Glā* is the emptiness, the emptiness is *glā*; *glā* made itself into two emptinesses, two emptinesses made themselves into *glā* itself.' From the couple there came a humid substance, *zo sumale*, 'cold rust', which came out in the state of an invisible, liquid steam and formed hard, brilliant bodies.

'When everything was full of these frozen bodies, *glā* emitted a force, *zo ñami*, which, rising and falling in itself, produced an internal breath called *fye tasuma*, "fire of wind". The two *glā* traversed this vast content, and this fire melted the substances: "The two *glā* arose and melted the voices of the *glā*—the creation spoke to the voice of the *glā*". At the time of this first melting, "the vast *glā* gave a place to all things in secret and invisibility".

The two *glã* then became quiet, "taking their energy back into themselves", and everything congealed and froze ['*se figea, se glaça*'] again. Then a second time they melted the substances, as if to make and remake a model. These movements, called *glã glã*, bear witness to the very essence of *glã* which is that of the eternal resurrection of things; and the repetition of the word expresses the twinness which is the basis of creation.'

This is only a sample of the Bambara creation story, which the interested student may pursue for himself in the cited monograph and in Dieterlen's book,[29] as well as in my own review.[30] I leave the matter with two remarks. Firstly, these so-called 'primitive' Africans, who according to legend are incapable of abstract thought, are merely struggling with the philosophical problem of how something could come out of nothing! Secondly, I cannot refrain from expressing my astonishment that such subtle and abstract matters should be approached through an interpreter, and that we are still waiting for a really competent study of the Bambara language. This material belongs to the history of human thought, and the statements of the elders who tell these stories must be treated with the same kind of scholarship as a Greek or a Hebrew or a Sanskrit text. This comment is not intended as a criticism of Griaule or Dieterlen, who are rather to be thanked for showing us something important about West Africa. Their work shows that a great labour lies ahead of those who are interested in, or whom one can interest in, African thought.

It is not too much to say that the discovery of really deep African thought and its rescue from contempt and oblivion depends on the serious and scholarly cultivation of the African languages. It is true that the illiterate poet may be no less a poet although he knows no syntax or philology; but his audience is very limited, and its fickle interest is easily distracted by the increasing glitter of European machine culture. Worse yet, the poet is highly vulnerable to the contemptuous attitudes of city-folk, both European and African, and of their country cousins who imitate them. I believe that the serious study of the poet's language—even by someone else—can give him the necessary self-confidence and sophistication to enable him to continue and to develope his art. The student linguist gives him a new and vitally important audience.

III

Finally, I should like to return to comparative linguistics and invite you to take a closer look at the evidence for genetic connection between the various languages of West Africa.

When we say that two languages are genetically related, we mean that they have a considerable number of words in their *basic* vocabularies which are similar both in form and in meaning. So similar, in fact, that common origin of the two languages is the easiest explanation of their resemblances. As to similarity in meaning, I shall only say that the more precisely—and delicately—similar the words are, the more plausible is their comparison. The judgement of similarity of form, on the other hand, is a highly technical matter, based on our increasing knowledge of the mechanism and dynamics of the human vocal apparatus. The basic point to remember is that the pronunciation of words does change in time, and that sounds tend to change into similar sounds. It is a widely observed fact of human speech behaviour that when a sound in a language changes, all the sounds of that particular kind undergo the same change, provided that they occur in similar environments—an important proviso. Just how complex a matter this may be, can be shown by consideration of the fact that, as Pike has pointed out, the complete specification of the sound [t] in English requires data on at least fifteen different variables. If any one of them changes, we have a sound-shift. It is quite obvious that in phonetics and in linguistic comparisons we are dealing not with absolute sounds or with letters of the alphabet, but with families of sounds. 't' is not just 't', or the letter T, but a set of at least a dozen—very likely several dozen—forms of speech behaviour which a phonetician will find it convenient to group together into one category. Thus, when I visited Oxford some years ago, a group of students with whom I was discussing these matters decided that the 't' in the name of Merton College has three extremely different articulations. The dons will say [mɔ:tɔn], releasing the 't' from the tongue tip; the students will say [mɔ:tn], releasing the 't' through the nose, from behind the velum; the scouts will say [mɔ:ʔn], with a glottal stop. There are many types of sound-shift which, from a phonetic point of view, are easy, and have been frequently observed in many languages

throughout the world. They therefore have a certain probability and therefore plausibility. Other kinds of change are mechanically difficult and are rarely observed. They can be said to be improbable, and the statement that they have occurred in a particular case is implausible unless backed up by considerable detailed evidence. Thus a change from [i] to [u] and vice-versa has been often observed, as for example, Yoruba *iṣu*, 'yam', Igala *úcu*, 'yam'. It is easy for a phonetician to see how [c] may become [s], but he would be very surprised at an example of [c] becoming [m]. The change from [k] to [c] is a frequent one, and the mechanism of it is well understood (e. g. the Latin name Caesar ['kaisar] becoming the Italian Cesare ['cezare]). But the reverse of this process would be quite improbable. It is hard to see how [c] could ever become [k].

There is another reason why the comparison of several languages is a tricky and technical matter. This is the fact that a sound in a particular language is a part of the system of sounds of *that* language. It is hazarding a lot to say that it 'corresponds' to a closely similar sound in another language, even when the second sound is very similar to the first, acoustically speaking. When languages change, they often change the number of sounds in a particular set—or even the number of sounds in the whole phonology. When this happens, many parts of the sound system may be thrown out of balance, and a considerable redistribution of sounds may result. For example, most varieties of American English have lost the /ɔ/ sound of British English, and this vowel has usually been assimilated to the /a/ sound. My own name, which in U.K. is pronounced ['rɔbət], I pronounce ['ra:brt]. Similarly, the word 'bother', ['bɔthə] in England, rhymes with 'father' in America: ['ba:thr] ['fa:thr]. You will see what this implies logically when I ask you to think of a small problem in mathematics.

How shall we describe the numbers that appear on the face of a traditional clock? It has twelve numbers, arranged in a circle. We may describe 'four' as the number which comes after 'three' and before 'five'. Or we may say that it is the number which is the product of 'two times two'; or yet again that it is a number such that when it is multiplied times two the product is 'eight' and when it is multiplied times three the product is 'twelve'. So far so

good. But what if we go on and say such things as, 'nine and four equals one', 'five times four equals eight', and 'four plus eleven equals three'? These are true statements—true, that is, of the arithmetic of a system with the particular limitations of clock. If we use a 24-hour clock, we will have to revise the above statements, and they will again resemble the statements of our more traditional arithmetic. But even there we may be surprised to discover that 'nine times three equals three'. We can work these problems in reverse and taking a set of such statements design a clock-face on which they would hold true. This is not just an idle mathematical game. The mathematics of gears, or 'gear-trains', as we say in America, consists of just such calculations. Can we then think of a clock-face that would allow us the arithmetic that we are used to? The answer is, of course, 'Yes'. Such a clock would have a very large set of numbers, a thousand, or a million, or better still an infinite set of numbers.

To bring the matter back to comparative linguistics, the phonologies, or sound systems, of the various languages are very much like clock faces with somewhere between twenty and fifty numbers on them. To say—as we do and must—that /b/ of English 'corresponds' with /b/ of German, or that /b/ of Yoruba 'corresponds' with /b/ of Idoma and /b/ of Fula is like saying that '7'on a clock-face with twelve positions corresponds with '7' on a clock-face with fifteen positions and with '7' on a clock-face with nine positions. In some senses the three sevens do correspond, in other senses they do not. In the Appendix to this lecture, I present comparisons between a selection of some eighty words or word-roots which seem to have cognate reflexes of each other in various languages and which can therefore be taken as evidence, along with a good deal of other evidence, that these languages are genetically related to each other—at varying degrees of distance. You will forgive me for having all sorts of mental reservations about the forms which appear on these lists. I am presenting carefully selected similarities between these languages and ignoring the mountainous differences. I have chosen evident cases and omitted many which are not obvious to non-specialists. Still, I believe this procedure to be sound. The words are all from the basic vocabulary of the languages concerned. They are thus from the most conservative part of speech, where change is slowest. These lists

are the distillation of a great deal of labour by many people. I make bold to present and discuss them before this audience because I think that it is high time to bring the matter of the relationship of languages in Africa down from out of the turbulent clouds of ideological speculation and into the realm of empirical study. I have chosen languages from five of the six great sub-families into which Greenberg divides the Niger-Congo family of languages. The West Atlantic languages, however, are represented principally by Fula, or Fulani[31], but enough examples from other West Atlantic languages are added to show the relation of Fula to them.[32] The Mande languages appear only in Nos. 57 and 80. The Gur languages are represented only by Mõõré[33], the language of Ouagadougou, the capital of the Republic of Upper Volta, and by Bwamu, spoken in southern Mali and the western part of Upper Volta.[34] The bulk of the examples given here come from the Kwa family and the Benue-Congo ('Central Branch', 'Benue-Cross', 'Semi-Bantu') sub-families, which lie along and inland from the Guinea Coast. I cite copiously from such well-known languages as Twi,[35] of Ghana, Ewe,[36] of Togo, Fon,[37] of Dahomey, as well as Yoruba,[38] Igala,[39] Bini[40], Nupe[41], Igbo,[42] and Igbirra,[43] of Nigeria. The Idoma materials are my own. I make considerable use of smaller languages (i.e. those whose speakers are less numerous), and I hope that their extreme value as linguistic and historical documents will become evident in these lists. The Late [lɛtɛ] word in No.80 is from Ladefoged.[44] The Ishekiri examples are furnished by Mr Alfred Opubor. I am indebted to Dr Kay Williamson for the use of her Proto-Ijo words and her materials in Epie, which is an Edo language spoken by about 10,000 people of the Delta, in Yenogoa Province, Eastern Region. I have used materials which I collected myself for three of the eastern-most Kwa languages, Igede and Akweya, in Idoma Division, and Etulo, in Tiv Division, at Katsina Ala. For the Benue-Congo languages I have relied on the Tiv dictionaries by Abraham and by Terpstra[45] and on the advice of Dr David Arnott, who was also most helpful with Fula. The Eloyi words are from Mackay.[46] I have myself collected the materials on two other languages of this group, Ufia, of Idoma Division, and Kutep, near Takum in Wukari Division. The Jukun material is from Welmers.[47] The Efik words were collected by Karen Asika.[48] Dr Hoffmann has kindly allowed me to use his Kambari materials to round out the

Benue-Congo citations. The Proto-West Sudanic roots are taken from Westermann.[49] The Proto-Bantu roots are from either Meinhof[50] or Bourquin,[51] except where noted. The underlying connection between Proto-Bantu and Proto-West Sudanic and of Yoruba and Igbo to both will, I think, be quite evident.

The inclusion of Fula in this comparison is a bit of a *tour de force*. My guess is that it is at least 6000 years, and probably more like 10,000 years since Fula, Yoruba and Igbo diverged from a common source.[52] So trying to find and to demonstrate direct evidence for the relationship is a bit like trying to demonstrate the connection between Bengali and modern English by direct comparison. I think it can be done, however, and I have been surprised at how many examples came to light when I looked for them. No less than 27 of my present list of eighty basic words! Greenberg contented himself with demonstrating the membership of Fula in the West Atlantic sub-family and in particular its close relationship to Serer and to Wolof. He goes on to say, 'Since the membership of Serer-Sin and Wolof in the West Sudanic family has never been questioned, it must follow that Fulani is also a member of this group.' If we do in fact question this relationship, we shall find that the crucial study is in the *Westsudanische Studien V*, of the *Mitteilungen des Seminars für Orientalische Sprachen*, XXXI (3) 1928. It has been out of print for decades and is not an easy source for most people to consult. Greenberg's proof and Westermann's acceptance of it in 1952 must, therefore, remain somewhat abstract in Ibadan. So despite all the difficulties, I think it worth turning our attention to empirical data to see what we can see—or to hear what we can hear. After all there are phenomena at the sea shore, visible to the naked eye of a keen observer, which demonstrate to him the curvature of the earth. And we can verify for ourselves that light objects fall as fast as heavy by getting someone to drop a coconut and a palm kernel from the top of a palm tree and observing the result. Similarly, we can, despite all the complexities of the problem, line up some common words from various languages and see—or hear—whether or not they sound persuasively alike.

There is of course a great deal more that could be said about the relations and interrelations of the languages of West Africa. I

think that the abiding impression which the study of these languages leaves is the immense antiquity of West African languages and therefore of West African culture. These languages change very slowly and yet they have become very diverse, while yet keeping an orderly arrangement on the landscape. A great deal of time must have passed in order to produce this result. And underlying this great diversity, which we are only now beginning fully to appreciate, there is a fundamental and elaborate unity, the exploration of which by African scholars in the decades to come can only contribute to the development of African social and political unity on a solid foundation.

NOTES

1. **P. E. H. Hair,** "The Contributions of Freetown and Fourah Bay College to the Study of West African Languages", *Sierra Leone Language Review*, No. 1, 1962, pp. 7-18. (Fourah Bay College, the University College of Sierra Leone: London, Luzac and Co.).
   P. E. H. Hair, "The Sierra Leone Settlement—The Earliest Attempts to Study African Languages", *Sierra Leone Language Review*, No. 2, 1963, pp. 5-10.
   P. E. H. Hair, "Koelle's Polyglotta and its Antecedents", unpublished paper read at the Third West African Languages Congress, Freetown, 1963.
   P. E. H. Hair, "Koelle in Freetown", introduction to S. Koelle, *Polyglotta Africana*, second edition (Graz: 1964, forthcoming).
2. **Joseph Greenberg,** "The History and Present Status of African Linguistics", *Proceedings* of the First International Africanist Congress, Accra, December 1962. (Forthcoming).
3. *Le Plus ancien Dictionnaire Bantu* [KiKongo], *Vocabularium P. Georgii Gelensis* [P. Georges de Gheel, died 1652], edited by J. van Wing and C. Penders S. J. (Louvain: Bibliotheque Congo, Imprimerie J. Kuyl-Otto, 1928). Br. Hyacinth Brusciotto, *Of the Declension of Nouns, or as it is better expressed, their Principiation and their Rules* [of KiKongo] (in Latin, Rome: 1659). Second edition: *Grammar of the Congo Language* (James Mew, translator), H. G. Guiness, Editor. (London: Harley House; Hodder and Stoughton, 1882).
4. **Gabriel Manessy** and **Serge Sauvageot,** *Wolof et Serer, Etudes de Phonetique et de grammaire descriptive.* Universite de Dakar, Faculte des Lettres et Sciences Humaines, Publications de la Section de Langues et Litteratures, No. 12 (Dakar: 1963), pp. x-xv.
5. **H. Labouret,** *La Langue des Peuls ou Foulbe.* Memoires de l'Institut Français d'Afrique Noire, No.16 (IFAN-Dakar: 1952), p. ix.
   H. Labouret, *La Langue des Peuls ou Foulbe, Lexique Français—Peul.* Memoires de l'Institut Français d'Afrique Noire, No. 41 (IFAN-Dakar: 1955), pp. 11-12.
6. **S. W. Koelle,** *Polyglotta Africana.* (London: Church Missionary Society, 1854.) (*Graz and Freetown*: 1964, second edition. Forthcoming.)
7. **J. G. Christaller,** *A Grammar of the Asante and Fante Language.* (Basel:1875.)
   J. G. Christaller, *Dictionary of the Asante and Fante Language called Tshi.* (Basel: 1881, 2nd ed. 1933.)
8. **St. Clair Drake,** "The Responsibility of Men of Culture for Destroying the 'Hamitic Myth' ", *Presence Africaine*, xxiv-xxv, special issue, Second Congress of Negro Writers and Artists, Rome, 26 March—1 April 1959, (Paris: Presence Africaine, 1959), pp. 228-243.
9. **Cheikh Anta Diop,** *Nations Negres et Culture.* (Paris: Editions africaines, 1954.)
10. **Carl Meinhof,** *Die Sprachen der Hamiten.* (Hamburg: 1912.)
11. **Ibid.** p. vii. My translation.

12. **Ferdinand Hestermann,** "Der Anlautwechsel in der Serersprache in Senegambien, Westafrika", *Wiener Zeitschrift fuer die Kunde des Morgenlandes,* XXVI. Bd., 1912, pp. 350-362.
"Die Repetition in der Serersprache von Senegambien", *Zeitschrift der Deutschen Morgenlaendischen Gesellschaft.* 69. Bd. 1915, pp. 107-112. "Die Dreistufige Anlaut und die Suffixbildung im Serer", *Wiener Zeitschrift fuer die Kunde des Morgenlandes.* Wien, XXX. Bd. 1918, pp. 223-262. All three articles are reprinted in Manessy and Sauvageot, *Wolof et Serer,* op. cit., Note (4) above, pp. 225-285. The quoted sentences are from pp. 225-6. (My translation.)
13. **Richard Thurnwald,** *Die Menschliche Gesellschaft;* Vol. IV, *Werden, Wandel und Gestaltung von Staat und Kultur,* (Berlin: Walter de Gruyter und Co., 1935), p. 25. (My translation.)
14. **Kurt Wolff,** "Die Entstehung der fruehen Ful-Staaten in Senegambien", in *Beitraege zur Gesellungs- und Voelkerwissenschaft* (Professor Dr Richard Thurnwald zu seinem achtzigen Geburtstag gewidmet). (Berlin: Gebr. Mann, 1950), pp. 435-445. The citation is from pp. 440-441. (My translation.)
15. **H. Labouret,** (1955, op. cit), pp. 18-19, 40, et passim.
16. **F. W. Taylor,** *A First Grammar of the Adamawa Dialect of the Fulani Language,* (Oxford: 1921), p. 10. The second edition (1953) repeats this statement.
17. See for example:
Daryll Forde (ed.), *African Worlds, Studies in the Cosmological Ideas and Social Values of African Peoples,* (London: Oxford University Press for the International African Institute, 1954).
Jakob Spieth, *Die Religion der Eweer in Sued-Togo,* (Leipzig: Dietrich, 1911).
Marcel Griaule, *Dieu d'eau: entretiens avec Ogotemmeli,* (Paris: Editions du Chene, 1948).
Marcel Griaule and **Germaine Dieterlen,** *Signes Graphiques soudanais, L'Homme,* Cahiers d'Ethnologie et de Linguistique 3 (Paris: Hermann et Cie., 1951).
Germaine Dieterlen, *Essai sur la religion des Bambara,* (Paris: Presses Universitaires de France, 1951).
Melville Herskovits, *Dahomey, an Ancient West African Kingdom,* (New York: Augustin, 1938).
Robert S. Rattray, *Religion and Art in Ashanti,* (Oxford: Clarendon Press, 1927, reprinted 1954). Also his other books on Ashanti.
18. The older literature on the Fulani is highly suspect because of the race prejudice which infects both European and Arabic writers and which shows itself in an unwillingness to ascribe a historically active role or honourable status to the Negro section of the Fulani. This produces paradoxical results in even very recent publications. For example, on the unlabelled but presumably historical map which appears in the *Note de Presentation,* (p.5), by G. Brasseur and G. Savonnet, to accompany *Cartes Ethno-demographiques de l'Afrique occidentale,* Feuilles No. 2, (IFAN-Dakar: 1960), we see that the centre from which the Fulani are shown (by four long

arrows on the map) to have sent out their migrations from the Eleventh to the Nineteenth Centuries is placed in the Ferlo, in an area which other maps of the same excellent series show to have a population of less than one person per square kilometer. On the other hand, the Senegal River valley, 200 kilometers away is left as a historical blank despite the fact that the demographic map shows it to have a population ranging from ten to fifty people per square kilometer, the great majority of whom are native speakers of Fula (Pular). In the same series, an excellent map (*Carte des Groupes Ethniques d'Afrique Occidentale*, drawn by J. Richard-Molard, tirage 1952, Feuille No. 1 (IFAN-Dakar: 1954), the demo-geographical situation which produced the well-known dual Fulani culture is made very clear. The Senegal valley functioned as a differentially permeable membrane, since it must have been far more likely that Berber groups would cross it from north to south than from south to north. Once they had got used to pasturing their herds in the Ferlo Plateau, they were culturally isolated from the Mauretanian and other Berber groups, and had little motive for re-joining them. The whole area, then, was a kind of gentle Berber-trap; and the Berber cheerfully intermarried with their darker neighbours for several thousand years, just as they have done in the Maghreb area since their arrival there during the Mesolithic age. The stage was now set for European and Arabic writers to come and announce to the world that the Berber end of the Fulani spectrum was the original end, and that the Negroid end was adventitious and created by intermarriage with local populations.

It is worth noting what Delafosse wrote at about the same time that Meinhof's work appeared:

"...à mon avis la langue dite peule est une langue nègre, parlée à l'origine par un peuple negre complètement différent des Peuls, peuple dont les représentants actuels ne sont autres que les Toucouleurs, et cette langue a été adoptée...par un peuple de race blanche et d'origine judéo-syrienne dont les représentants actuels sont les Foulbé ou Peuls proprement dits."

"...(les Peuls)...il semble que leur conversion à l'islamisme est assez récente et ne remonte guère, pour la plupart d'eux, au delà des conquêtes toucouleurs des XVIIIe et XIXe siècles. Beaucoup ailleurs, surtout parmi ceux qui ont conservé le plus purement les caractéristiques de la race blanche, pratique aujourd'hui encore une religion qui ne semble pas s'éloigner énormément de ce qui dut être la religion de leurs ancêtres primitifs..."

"Toucouleurs (Tekrour)...sont autochtones du...Fouta sénégalais...(Quant à la poussée des Berbères [sic!]) la langue qu'ils parlent encore est une preuve vivante de leur très ancien et très intime contact avec les Toucouleurs."

"Les Toucouleurs...fournirent, semble-t-il, un contingent fort appréciable au conquérant Osmân-dan-Fodio, fondateur de l'empire de Sokoto...

"Mais s'ils constituèrent de tout temps une nation forte et puissante, s'ils sont devenus à une époque récente de conquérants remarquables, ils n'ont jamais été un peuple migrateur...

"N'oublions pas d'autre part que leur influence linguistique et religieuse fut la plus considérable qu'il nous soit permis d'enrégistrer dans l'histoire du Soudan français ...convertis à l'islamisme dès le XIe siècle, avant les autres peuples noirs, avant une bonne partie des Berbères et bien avant les Peuls, ils ont contribué plus que toute autre nation africaine à l'islamisation des Ouolofs ... (et seq.) ..." [Maurice Delafosse, *Haut-Sénégal-Niger* (Paris: Larose, 1912), Vol. I, pp. 198-199, 234, 235, 236, ff.]

["...In my view the language which is called Fula (*peule*) is a Negro

language, spoken in the beginning by a Negro people completely different from the Fulani, a people whose representatives today are none other than the Toucouleurs; and this language was adopted ...by a people of the white race and Judaeo-Syrian origin whose representatives today are the Fulani (*Fulbe* or *Peuls*), properly speaking."

"...(the Fulani)...it seems that their conversion to Islam is fairly recent and scarcely goes back further, for the majority of them, than the Toucouleur conquests of the Eighteenth and Nineteenth Centuries. Many of them, moreover, especially among those who have preserved most purely the characteristics of the white race, still practise today a religion which does not seem to differ very much from what must have been the religion of their primitive ancestors..."

"The Toucouleurs (Tekrour)...are native to the Senegal Fouta...(With reference to the pushing in of the Berbers [sic!]), the language which they still speak is a living proof of their very ancient and very intimate contact with the Toucouleurs."

"The Toucouleurs...furnished, it seems, a very noteworthy contingent to (the forces of) the conqueror, Usman dan Fodio, the founder of the empire of Sokoto..."

"But though at all times they constituted a strong and powerful nation, and although in recent times they became remarkable conquerors, they have never been a migratory people..."

"Let us not forget, on the other hand, that their linguistic and religious influence was the most considerable that we have been able to record in the history of the French Sudan...converted to Islam in the Eleventh Century, before other black peoples, before a good part of the Berbers, and long before the Fulani [i.e., the caucasoid part of the Fulani. –R.G.A.], they contributed more than any other African nation to the islamization of the Wolof...(et seq.)..."]

Delafosse knew the country and peoples in question well, and his explanation of the history and ethnology of the Fulani is essentially that which is presented here and which was also accepted by Murdock. [G. P. Murdock, *Africa, its Peoples and their Culture History*, (New York: McGraw-Hill, 1959), pp. 414-416]. The fact that the herding people learned Fula suggests strongly that their infiltration of the Ferlo was a slow seepage over a long period of time rather than an organized movement at a particular time (migration), which would almost certainly have resulted in their keeping their original language. But rather than admit the Toucouleur to the status of full-fledged Fulani, Delafosse prefers to rely on a wholly fantastic story of the origin of the caucasoid element from Syria—a story referred to in the first paragraph quoted above and detailed at great length in the pages cited. Baumann and Westermann dismiss this story as 'absolutely improbable', and then go on to produce an even more improbable version, which I shall pass over in silence. They do add a couple of interesting facts, however, saying that, 'The Toucouleurs call themselves *Halpularen*, "those who speak Fula" (Pular).' They also tell us that, 'Fulani called *Silmimossi* (or *Silmisse*) live among the Mossi [of Upper Volta] and are mixed with them. The following names designate Fulani castes:

Dyawambe "weavers", *Laobe* "workers of objects of wood", *Abarbe* "goldsmiths and leather-workers", *Wayube* "blacksmiths, potters", *Mabbe*, "singers, weavers", *Subalbe* "canoe-paddlers and fishermen", *Wambabe* "musicians", etc.' [H. Baumann and D. Westermann, *Les Peuples et les Civilisations de l'Afrique* (Paris: Payot, 1957; translated and shortened from Baumann, Thurnwald and Westermann, *Voelkerkunde von Afrika*, (Essen: 1940)), pp.390-392.] It is at least arguable that so highly differentiated a set of 'castes', practising an essentially sedentary set of skills, may not have arisen by the inter-marriage of nomadic Fulani with local Mossi, but rather that they may go back to the original Toucouleur society in Senegal.

The genetic study of blood groups has in recent years added a powerful tool to our arsenal for the statistical study of the relationships of whole populations. Reporting on a test done in Nigeria, Blumberg, Ikin, and Mourant say:

'The Pastoral Fulani samples (from near Kaduna and near Pankshin) show a particularly high frequency of the N gene, which suggests a relationship with the Berber and Tuareg populations to the north...The high O frequency in the same batch supports this suggestion, as do the Rh frequencies in both batches, for CDe is considerably higher and cDe lower than in any other African populations so far tested south of the Sahara other than the Tuaregs. However, the frequency of the d gene (all as cde) is about that usually found in Africans and nowhere near the high figure found in Berbers and Tuaregs. This is compatible with a Mediterranean rather than a Berber admixture. The frequency of 45 per cent of cDe chromosomes is, however, consistent with the thesis that these populations are in the main of Negroid origin...The only other available data on the MNS and Rh groups of the Fulani...are an unpublished series by Garlick, Ikin, and Roberts. These have a cDe chromosome frequency of 55 per cent and thus appear to be more negroid than either of the present series. A higher cDE of 10 per cent suggests connections with other Nigerian tribes and with the Belgian Congo. The MNS frequencies are intermediate between the two present series, but the rather high N supports the theory of Berber admixture in the Fulani...' [Blumberg, Ikin, and Mourant, "The Blood Groups of the Pastoral Fulani of Northern Nigeria", *American Journal of Physical Anthropology*, June 1961, pp. 195-200.]

When we discuss the history of a group of people over a thousand years and an area of dispersion of two thousand miles, we are necessarily talking mainly of the history of a culture: the history, that is to say, of a set of ideas, of those who taught them and of the students who in their turn became teachers. The genetic history of such a succession of teachers and students is subject to all the influences of human fancy. The point of this discussion is that the Negro Fulani have played a leading role from the very beginnings of their nation, that they have never ceased to play such a role, and that they cannot be dismissed as local, adventitious accretions to a once 'pure' stock. At least half of whatever honour the Fulani have won for themselves must be credited to the Negro account and not against it. And it is also worth asking whether the history of the Fulani should not be studied from the point of view of the advantage that may accrue from race mixture.

19. **Joseph Greenberg,** *Studies in African Linguistic Classification*, (New Haven: Compass Publishing Co., 1955). [Reprinted from a series of articles in

the *Southwestern Journal of Anthropology*, Vol. V, Nos. 2, 3, 4 (1949) and Vol. VI, Nos. 1, 2, 3, 4 (1950). Revised and re-issued as *The Languages of Africa*, Part II, *International Journal of American Linguistics*, Vol. 29, No.1, January, 1963, (Bloomington: Indiana University; the Hague: Mouton and Co., 1963).

20. **D. A. Olderogge,** "Khamitskaya Probl'ema v Afrikanistik'e", *Sovietskaya Etnografiya*, 1949, No. 3, pp. 156-170, ('The Hamitic Problem in Africanistics').
21. **August Klingenheben,** "*Die Permutationen des Biafada und des Ful*", *Zeitschrift fuer Eingeborenensprachen*, Vol. 15, Nos. 3 and 4, 1924-25, pp. 180-213, 266-272.
22. Op. cit., p. 167.
23. **Diedrich Westermann,** *Africa*, Vol. 22, 1952, p. 253.
24. **August Klingenheben,** *Die Sprache der Ful (Dialekt von Adamaua)*,(Hamburg: J. J. Augustin, 1963), p. xi.
25. See 4. 'bad', 8. 'come', 12. 'goat', 29. 'water', 37. 'three', 44. 'mouth', 48. 'mother', 49. 'four', 50. 'animal', 62. 'lick', and 79. 'snake'.
    See especially 'mouth': Fula hunu , Yoruba enu, Igbo onu, Proto-Bantu -nua; 'mother': Fula 'inna, Yoruba (Ife-Togo dialect) ina, Igbo nne, Proto-Bantu nina; 'four': Fula nay-, Yoruba erin, Igbo ano, Proto-Bantu -na.
26. **Robert G. Armstrong,** "Glottochronology and African Linguistics", *Journal of African History*, III, 2 (1962), pp. 283-290.
27. **H. Labouret** and **P. Rivet,** *Le Royaume d'Arda et son evangelisation au XVIIe siecle*, (Paris: 1929).
    Diedrich Westermann, *Ewe-Woerterbuch* (1954), p. xxii (my translation –R.G.A.). [Quoted in Ursula Hintze, *Bibliographie der Kwa-Sprachen und der Sprachen der Rest-voelker* (Berlin: Akademie-Verlag, 1959), p. 54.]
28. **Marcel Griaule** and **Germaine Dieterlen,** 1951, op.cit. (note 17), pp. 6, 32-36.
29. **Germaine Dieterlen,** *Essai sur la religion bambara*, op. cit., pp. 2 ff.
30. **Robert G. Armstrong,** Review of *Signes Graphiques Soudanais*, in *Man* (London: Royal Anthropological Institute), Vol LVII, Sept., 1957, pp. 138-140.
31. **F. W. Taylor,** op. cit. (note 16).
    H. Labouret, op. cit. (note 5).
    August Klingenheben, 1963, op. cit. (note 24).
32. The Proto-West Sudanic and the words from the West Atlantic languages other than Fula are (unless otherwise marked) from Diedrich Westermann, *Die Westlichen Sudansprachen und ihre Beziehungen zum Bantu*, (Berlin: W. de Gruyter, 1927 (Mitt. Sem. orient. Spr., 30, Beih.)) Other sources for the West Atlantic languages are as follows:
    W. A. A. Wilson, 'West Atlantic Group 19-Word List', unpublished typescript.
    W. A. A. Wilson, *An Outline of the Temne Language*, (London: Luzac and Co., for School of Oriental and African Studies, University of London, 1961).
    W. A. A. Wilson, 'Outline of the Balanta Language', *African Language*

Studies, II, 1961 (London: Luzac and Co., for School of Oriental and African Studies, University of London), pp. 139–168.

J. P. L. Scott, *An Introduction to Temne Grammar*, (Freetown: Sierra Leone Government Printing Dept., 1956).

W. J. Pichl, *Sherbro-English and English-Sherbro Vocabulary*, (Freetown: Fourah Bay College, 1963).

33. **Rev. Pere Alexandre,** *La Langue Moore* (two volumes), (Dakar: IFAN, 1953).

34. **G. Manessy,** *Taches quotidiennes et travaux saisonniers en pays bwa*, (Dakar: Universite de Dakar, 1960).

——*La Morphologie du nom en Bwamu*, (Dakar: Univ. de Dakar, 1960).

——*Le bwamu et ses dialectes*, (Dakar: Univ. de Dakar, 1961).

35. **Rev. J. G. Christaller,** op. cit. (note 7).

J. Berry, *English, Twi, Asante, Fante Dictionary*, (London: MacMillan and Co., Ltd. for The Presbyterian Book Depot, Accra and Kumasi, 1960).

36. **D. Westermann,** *Gbesela Yeye or English-Ewe Dictionary*, (Berlin: Dietrich Reimer, 1930).

——*Edefiala or Ewe-English Dictionary*, (Berlin: Dietrich Reimer, 1928).

37. **Rev. Pere B. Segurola,** *Dictionnaire Fon-Francais*, (Cotonou: Procure de l'Archidiocese, 1963).

A few words of Gun are listed and are taken from Westermann, op. cit. (note 32).

38. **R. C. Abraham,** *Dictionary of Modern Yoruba*, (London: University of London Press Ltd., 1958).

I have collected the Ife (Togo) words myself, with the help of Rev. Charles Hein and Mr R. Atakpa, of Atakpame.

39. I have collected the Igala words myself.

40. **Hans Melzian,** *A Concise Dictionary of the Bini Language of Southern Nigeria*, (London: Kegan Paul, 1937).

41. **A. W. Banfield** and **J. L. MacIntyre,** *A Grammar of the Nupe Language*, (London: Society for Promoting Christian Knowledge, 1915).

42. **L. B. Swift, A. Ahaghotu,** and **E. Ugorji,** *Igbo Basic Course*, (Washington D.C.: U.S. Government Printing Office, for the Foreign Service Institute, U.S. Department of State, 1962).

Margaret Green and **Rev. G. C. Igwe,** *Comprehensive Grammar of Igbo*, (Berlin: Akademie Verlag, 1963; and London: Oxford University Press, 1964).

R. C. Abraham, *Dictionary of Ibo*, (typescript and notes).

43. **Peter Ladefoged,** "Igbirra Notes and Wordlist", *Journal of West African Languages*, Vol. I No. 1, Jan., 1964, pp.27–38, (Cambridge University Press and Institute of African Studies, University of Ibadan).

44. **Peter Ladefoged,** "La Base phonetique des Langues de l'Afrique occidentale", *Actes du Second Colloque International de Linguistique Negro-Africaine*, (Dakar: Universite de Dakar, West African Languages Survey, 1963), pp. 14–15. This particular word is the most precisely studied in my whole list.

45. **R. C. Abraham,** *A Dictionary of the Tiv Language*, (London: Crown Agents for the Government of Nigeria, 1940).

Gerard Terpstra, *English-Tiv Dictionary* (mimeographed), (Gboko, Nigeria: Sudan United Mission, Mkar, Gboko, [via Makurdi], 1959).

46. **Rev. Hugh Mackay,** "A Word-list of Eloyi", *Journal of West African Languages*, Vol. I No. 1, Jan., 1964, pp.5-12, (Cambridge University Press and Institute of African Studies, University of Ibadan).
47. **W. Welmers,** *An Analysis of Two Dialects Known as Jukun*, (Takum, Wukari Division, Nigeria: unpublished typescript, 1949).
48. **Karen Asika,** Basic vocabularies (200 words) for Yoruba, Bini, Igbo, Efik, Tiv. Student paper, (From African Student informants) University of California, Los Angeles, 1963.
49. Op. cit. (note 32).
50. **Carl Meinhof,** *Grundriss einer Lautlehre der Bantusprachen*, (Berlin: 1910).
51. **W. Bourquin,** *Neue Ur-Bantu-Wortstaemme*, (Berlin: 1923).
52. By speaking of a single ancestral language, 'Proto-West Sudanic' (Westermann) or 'Proto-Niger-Congo' (Greenberg), I am explicitly adopting the family-tree model as a first-level approximation and a useful working hypothesis in the classification of West African languages. I am aware of the many logical and practical difficulties involved in this concept, but they seem to me less than the difficulties involved in the alternative models available. I avoid phrases which sound superficially more conservative, such as 'an ancient or previous close connnection' between such languages as Fula and Igbo, because they seem to commit one implicitly to the concept of the *Mischsprache*. I regard the formation of true *Mischsprachen* as highly improbable. In Africa particularly, the *Mischprache* should be the last hypothesis to be used in explanation, only after all others have failed. In the older literature it has all too often been offered as an easy excuse for avoiding the hard work of real study of the languages involved.

    The point of the particular vocabulary being compared in this study is that it consists of words from the basic vocabulary of the various languages being compared. When there is a sufficient number of such words in common between two languages, and when these resemblances are supported by deeply imbedded morphological and syntactical similarities as well, then origin from an earlier state of unity is the easiest explanation. Finally, one should remember that the history of a language is the history of a set of ideas, not the history of a people, which follows quite different principles.

APPENDIX

The Network of Linguistic Relationships in West Africa

Illustrated by Eighty Words of English whose Translation Glosses form Sets of Reciprocal Cognate Reflexes which Appear in the Basic Vocabularies of Several Languages

In the following I have attempted to keep the spelling as consistent as possible, basing myself in the main on the International Phonetic Alphabet. I use the standard eight-vowel system of the Onwu Commission for Igbo, however, since the IPA letters seem to me to misrepresent the front vowels of Igbo. So we have:

i u
ị ụ
e o
a ọ

In the vowel harmony system of Igbo, the sounds represented by the dotted letter and by /a/ form a set which go together in simple words; and the undotted letters (except /a/) likewise form a set which go together. I have also used Dr. Kay Williamson's similar notation for Epie and Proto-Ijo, which, with the addition of /ɛ/, have nine-vowel systems in which /a/ is neutral and the other vowels form two mutually exclusive sets, represented by dotted and undotted letters respectively.

The acute accent, ´, shows the high tone; the grave accent, `, shows the low tone; and mid tone is usually unmarked, but may be shown by a macron, ¯ (e.g., in Tiv consonant suffixes). The low-mid tone of Igede is shown by ˭ . The wedge, ˇ, shows rising tone and the circumflex, ^, shows falling tone. Nasalization of a vowel or other sound is shown by a tilde, ~, over the letter which represents it. In the Mõõré list, which is not tone-marked, the macron stands for a long vowel ,

as is also the case in the Fula list and the Kambari list, which is tone-marked. I have have arranged the languages by sub-families, roughly in the order of their distribution from west to east; and the words are grouped so as to suggest the main sound correspondences.

For typographical reasons the following substitutions are made: ƀ = the voiced bi-labial fricative [β], ɖ = the retroflex [ɖ] of Ewe, gh = the voiced velar fricative [ɣ], sh or ʃ = the voiceless palato-alveolar fricative [ʃ], c and j = the palatal affricates [tʃ] and [dʒ] respectively, y = the palatal semi-vowel heard in English 'yes' and in German 'ja', ɾ = the tongue-flap r-l intermediate sound [ɾ] (in Bini). Palatalization and aspiration are shown by raised ^{y} and ^{h} respectively after the affected letter. (E.g.: k^{y} and g^{h}.)

In the Fula list, the mutation alternants for roots beginning with w and y are shown in parentheses. E.g.: wi'- (b) means that wi'- could appear also as bi'- or mbi'-.

The glottal stop [ʔ] is shown by the apostrophe '. Before an initial vowel it indicates a glottalized onset. After a final vowel it shows final glottality, as in Fula go', 'one'.

The Proto-Bantu list is not tone-marked, and ɨ stands for Meinhof's 'schwerem i', or 'heavy i'. Similarly ʊ̈.

Note the following abbreviations:

PWS	Proto-West Sudanic
PB	Proto-Bantu
PIjo	Proto-Ijo
WA	West Atlantic sub-family of Niger-Congo
BC	Benue-Congo " " " " "

1. be (in a place).	PWS	*ba
WA Fula		won-
Temne		ba, 'have, be at a place'
KWA Twi		wɔ̀
Yoruba		wà
Idoma		bá (with plural subject)
PB		*ɓa
2. be near		
Fula		ɓad-
Twi		bɛ̀n
Yoruba		ɛ̀bá, 'proximity'
Idoma		bá
3. two	PWS	*-ba-
KWA Twi		àbìɛ́
Ewe		èvè
Fon		wè
Bini		èvá
Epie		ɨ́vɛ̀
Nupe		gúbà
Igbira		ɛ̀ɛ̀vá
Igbo		àbụ́ọ̄
Idoma		ɛ̀pà
Etulo		ɛ̀fà
BC Efik		ì-bà
Ufia		kúfá
Eloyi		epò
Jukun (Takum)		ápina
(Wukari)		ápyina
Kutep		ifɛ̄
PB		*-ɓali

4. father PWS *-bá, -bábá

WA Fula bāba-, bābira-
Biafada baba Sherbro bab (Ladefoged)
Temne ɔ-bai, 'chief' (Scott)
Sherbro bà, 'father!' (vocative)

KWA Yoruba baba, bàbá; ɔba, 'king'
Bassa (Liberia) ßa
BC Efik ɔbɔŋ, 'king', 'chief'

5. come PWS *-bá, bía

WA Fula war-, pl gar, ˜gar
Biafada bia
Balanta ben (Wilson)

GUR Mööré wa
Bwamu bwéi, bwala

KWA Twi bà Gã bà
Ewe vá
Fon wá
Yoruba wá; bɔ̀
E. Yoruba (Kabba) ghá
Isekiri wá
Igbira vé
Igbo byá
Idoma waà, gaà
Igede wɛ̀
Etulo ba; imperative kwa!

BC Tiv vá Kutep bá
Eloyi bó
Jukun bĭ

PB *gh^{y}a (Struck, Bourquin)

6. seek

GUR Mööré bao

KWA Fon bà
Yoruba wá

	Bini	gwàlɔ
	Urhobo	wɔ̀lɔ̀
	Epie	bé

7. animal

KWA	Twi	àbóá
	Idoma	àbé Bini àʃ̃áp̃è
	Etulo	àbwɛ
BC	Eloyi	kuvyé, pl ivyé

8. exist

GUR	Mɔ̃ɔ̃ré	bɛ
	Bwamu	wi, 'be, exist'
KWA	Yoruba	bɛ
	Ishekiri	wi
	Idoma	wè (identifier or copula)

9. cut off

KWA	Ewe	bé, 'cut away'
	Yoruba	bé
	Igbo	bè, 'prune'
	Idoma	bɛ

10. be bad, evil PWB *-bi-

WA	Fula	bon, bonde (Labouret)
	Wolof	bon (Msgr. Kobès)
GUR	Mɔ̃ɔ̃ré	bɛ, be
KWA	Twi	bɔ̀nɛ́
	Yoruba	ibi (n); búburú (adj)
	Ishekiri	ubi; búru
	Bini	ɔ̀bè (n)
	Igbo	mébì, 'spoil)
	Idoma	íbí (n); bɔbí (adj)
PB		*bi

11. child; to bear a child PWS *-bi-

WA	Fula	ɓi'i	(n)
	Serer	bi	(n)
GUR	Mööré	bĭ	(n)
KWA	Ewe	vi	(n)
	Fon	vĭ	(n)
	Yoruba	bí	(vb)
	Ishekiri	bí	(vb)
	Bini	bíɛ	(vb)
	Epie	bíé	(vb)
	Idoma	àbí, 'placenta'	
	Western Idoma	bi	(vb)
PB		*biad	(vb)

12. ten PWS *-g^{y}uá

WA	Sherbro	wà:ŋ
KWA	Ewe	ɖwó
	Fon	wǒ
	Yoruba	ɛ̀wá
	Isheḱiri	mɛ́ɛgwá
	Igala	ɛ̀gwa
	Idoma	ɪ̀gwó
	Etulo	ɪghwo
	Akweya	ɓɓgvu
	Igede	iwụ
BC	Eloyi	ŋ̄gwuwó
	Kutep	rɪ̀jwer
	Ufia	jɔ̀f

13. goat

WA	Fula	be'- (root); bē-, pl bē'-; mbēwa, pl be'i
	Wolof	bey (Msgr. Kobès)
	Temne	ɸir (Ladefoged)
GUR	Mööré	būgha, pl būsɔ
	Bwamu	vio

KWA	Yoruba	ewúrẹ́	
	Igala	ówó	Bassa (Kru) wiqi
	Igbira	evụ	
	Igbo	ówu	
	Bini	ɨwé	
	Isoko	ẹɓe	
	Idoma	ɨwu	
	Akweya	ɨmbbu	
	Igede	emū	
BC	Tiv	ɨvó	
	Eloyi	ɛmi, pl émi	
	Ufia	ɨbél, pl ɨbél	
	Kambari	mɓ-gbɛ̀lɛ̂, pl ŋɓ-gbɛ̀lɛ̂	
	Jukun (Takum)	bína	
	(Wukari)	byí	
Plj o		bbóri	
PB		*ɓulɨ	

(For the -rɛ, -lɛ, -li, etc. elements, compare the -l- root for 'sheep', No. 26 below.)

14. say

WA	Fula	wi, wi'i; wi'-(b)	
GUR	Mɔ̀ɔ́ré	wilɔm, 'speak foreign language' (lɔm, 'tongue')	
	Bwamu	bíé, bía	
KWA	Yoruba	wí	Gā wlɛ̀, 'speak'
	Ishekiri	gí	
	Bini	wɛ̌	
	Isoko	vuɛ, 'tell to'	
BC	Ogoni (Eleme)	wii, 'call' (Wolff)	

15. dress (vb) PWS *g^{y}á-

WA	Fula	wāt-	
	Temne	wɔŋ (Westermann)	
KWA	Gū (Dahomey)	wa (Westermann)	Gā wo
	Yoruba	wɔ, wɔgɔ [wɔ agɔ]	

Igbo	ɟwà, 'wear a g-string'
Idoma	wù [? See No. 16]

16. garment — PWS *-g^{y}u ('Wanderwort')

KWA Ewe	ɔ̀wù, 'sewn garment'
Fon	ɔ̀wù
Yoruba	ɔ̀wù
Bini	ówù, 'any garment except trousers' (Melzian)
Igede	ápù, 'cloth'
S. Idoma	ɔ̀wùrú, the large, sewn gown called 'agbádá' in Yoruba

17. steal — PWS *g^{y}i, g^{y}ia, g^{y}iu

WA Fula	wujj- (g)
Gola	wua — Kisi wiliŋ, " wiyo, 'thief'
KWA Twi	wíá
Gũ	wí, yí, yi (Westermann)
Yoruba	jí
Epie	ɔ̀zì, 'theft'
Nupe	yí
Igbira	yí
Igbo	ọ́hỤ̃Ị, 'theft'
Idoma	wi; ɔ̀wi, 'theft'
BC Eloyi	wɛ̀lɔ́
Ufia	yíf
Kutep	yíb
Jukun (Takum)	ví
(Wukari)	vyI
Kambari	ɨ̀vɛ́
PB	*ghiba

18. hand — PWS *g^{y}ua [? but cp. Nupe and Kutep]

KWA Twi	baa, 'arm';
Fanti	àbá

	Ewe	ɦbɔ́ 'arm'
	Fon	awɦ, 'arm'
	Yoruba	ɔwɔ́
	Ishɛkiri	ɛwɔ́
	Bini	ɓbɔ́, 'arm', 'hand'
	Epie	ƥɛƥ
	Nupe	ɛgwa
	Idoma	ɦbɔ
	Igede	obɔ̄, pl abɔ̄
	Akweya	ɓwa
BC	Tiv	wógh, pl ávó, 'hand, arm'
	Ufia	kɔ̀ɓɔ́', pl ɓɔ́', 'arm'
	Kutep	kʰjwó, pl ɦjwó
	Jukun	vo, 'hand, arm'
PB		*-ƥɔkɔ

19. bathe, wash; swim PWS *g^yua, g^yual

WA	Fula	yIw-
	Temne	wale, 'to wash'
	Gola	gwa, 'to wash oneself'
	Balanta	waaa, 'wash body' (Wilson)
GUR	Bwamu	wɦ̀, wɦ̀ɦ
KWA	Twi	gware, 'bathe'
	Yoruba	wẹ̀ Bini xwẽ́ [Melzian:
	Igala	gwɦ xʰɦ̃́]
	Idoma	gwa; ɦgwa, 'swimming'
	Igede	hyɦ or ɕyɦ, 'bathe';
		ɦwa, 'swimming'
BC	Eloyi	womɓ, 'wash oneself'
	Ufia	wɔ̀', 'swim'
	Kutep	jwe, 'bathe', $ʒ^v$e (Ladefoged)

20. snake PWS *-g^yuɦ

WA	Fula	wo'-(b) (Klingenheben, 1963, p. 95)
	Gola	ɔ́-gwɦ̃́

	Sherbro	$-k^hɔ$	
			GUR Bariba wáa, pl wéé
KWA	Twi	ɔwó	
	Gũ (Dahomey)	ɔwɔ̀	
	Yoruba	ejɔ	
	Igala	éjɔ	
	Nupe	ɛwa	
	Igbira	ɛwụ	
	Igbo	ágwọ́	
	Idoma	ɔgwa	
	Igede (Ito)	ílo	
	(Oju)	íjo	
BC	Ufia	jɔ'	Aten (Ganawuri) dzwɔ,
	Tiv	ìyó	pl ìzɔ
	Jukun (Wukari)	yǒ	
	Kambari	y-yɔ́, pl ỉ̀yɔ́	
	SW Kambari	kwɔ̃́kwɔ̀, pl ɔ̃́kwɔ̀	
PB		*-gh^yoka	

21. market

KWA	Twi	ɔgwá	
	Yoruba	ɔjà	
	Ifè (Togo)	ajà	[Yoruba dialect]
	Igbo	áhyá; áfyá	
	Igala	ájá	
	Idoma (S. and W.)	ɔ́jà	

22. egg. PWS *-gì-, -glà-

GUR	Mõõré	gyɔl	
KWA	Ewe	hzì	
	Fon	hzì	
	Yoruba	ɛyí	Ifè (Togo) ɛnyɛ
	Bini	ɔkɛ̃	
	Igbo	hkw^{h}á (Swift)	
	Nupe	ɛ̀ʒì	
	Igbira	hjé	
	Igala	égɛ	

Idoma ɦyì

S. Idoma ɦzì

Nkum (Cross River) lɛ̀jì, pl ɦjì

Igede (Ito) ɓlì

(Oju) ɓjì

Etulo ɦkyì

BC Tiv íji, pl áji Aten gep, pl bwep

Eloyi kɔ́ɲi, pl aɲi

Kutep ìkyì, pl ɦkyì

Efik ń-sèn

Ufia récére, récére

Ogoni (Gokana) ké

23. cut (vb) PWS *gi, gia

GUR Mööré kye WA Kisi kɛl

Bwamu gúi, gúo

KWA Twi twɔ, or cɥà (Ladefoged)

Ewe, Fon sé

Yoruba ké = gé Bassa čɛ̌

Ifè (Togo) ré

Nupe kiɦ

Igbira jɪ̀

Idoma hé

S. Idoma sé

Igede ce = hya

BC Tiv ɔsɔ̀

Ufia já'

Jukun gè; gè ke, 'cut up'

Kutep yer, yed

PB *-k^{y}eŋga, -kela, -keka

24 this PWS *-g^{y}i

KWA Twi ɓyí

Yoruba ɓyí

Ishekiri eyí

Igala éí, í

25. go PWS ^{N}-g^{y}i, g^{y}ia

WA	Fula				yah-
KWA	Ewe	Yoruba sí	yI	Oã	yá
	Fon		yì		
	Bini				yã
	Igbira		zì		
	Igbo				j^{h}é, 'go to'
	Idoma				yè
					yawù, 'walk'
					lyaù, a journey
BC	Kambari				ɟɔ̀wɔ̃, 'go to'
	Jukun				yà
PB	Ogoni (Gokana)		sì, kìl		^{h}ghia

26. sheep (two roots, the second being PWS ^{N}-guání)

WA	Fula	bāl- (root); ^{m}bāla, pl bāli	
	Temne	-lɔmɛ (Wilson)	
	Balanta	k-mfalla [k̃mfalla]([k̃], internally released /k/. Wilson)	
	Wolof	xar (Ladefoged)	
S.W.	Mande	bala (Welmers)	
Kwa	Igala	álá	Bini óhuá
	Idoma	álá	
	Etulo	hmhlah [hmhlh ?]	
	Ewe	hlé	hlégbɔ̃
	Fon		lɛ̃gbó
	Yoruba	(ewúré, 'goat')	àgùtɔ̀
	Ifè (Togo)		àgbàdɔ̀
	Igede		ɔkpíɔ

Compare No. 13 above. Many of the forms on both lists suggest that the words for 'goat' and 'sheep' have been compounded. See 34, 35 for other -l- correspondences.

27. snail

KWA	Yoruba	ìgbín
	Idoma	ìgbí
	S. Idoma	ìgbá
BC	Tiv	ígbínga dèl, 'water-snail'

28. shoot — PWS *-tá-; also 'bow' (n)

WA	Temne	ṭa, 'to wound with an arrow'
		aben-ta, 'bow'
	Gola	tā, 'shoot with a bow'
GUR	Mõõré	taõ
	Bwamu	tá, 'strike (with an arrow, a dart, a kick)' ['frapper (d'une flèche, d'un dard, d'un coup de sabot)']
KWA	Twi	tɔ̀w
	Yoruba	ta
	Ishekiri	ta
	Igala	é-ta
	Bini	sá
	Epie	sá
	Idoma	tá, 'shoot; throw'
BC	Tiv	ta
	Ufia	ttɨ̀
	Jukun	tá
	Kutep	ta
	Kambari	tàwâ
PIjo		*tɨ̀ɨ̀

29. bow (n) (See No. 28)

GUR	Mõõré	tā
KWA	Twi	ɔ̀tá, ɔ̀tá
	Nupe	tanci

	Igbira	ɔ́kɨ̀tà
	Igbo	ụ̀tá
	Idoma	ɔ̀ta
BC	Tiv	dâ, àkâ
	Jukun (Takum)	yɨ̀to
	(Wukari)	to
	Kutep	kùtá, pl àtá
	Kambari	ù-tâ, pl t-tâ
PB		*-ta

30. stone — PWS *-ta, -tal [also -ku-, RGA]

GUR	Mööré	kugri, pl kuga
KWA	Yoruba	òkúta
	Nupe	tákù
	Igbira	ɨ̀rɛ̨tá; atá, 'pebbles'
	Igbo	òkúté-ókúté, 'stony, rocky' (Abraham)
		ńkʰímé (M. Green)
	Swahili	ukuta, 'stone or masonry wall' (F. Johnson)
BC	Kambari	á-tálí, pl á-tálí
		ú-tálí, t-tálí, nether millst.
PB		*-tali

31. sell — PWS *ta- (also 'sell')

KWA	Twi	tɔ̀ŋ
	Ewe	dzrá
	Fon	sà
	Yoruba	tà
	Bini	xíé
	Epie	dɛ́ɛ́
	Igbo	ré
BC	Tiv	tê
PIjo		*dɛ̀rɨ̀

32. three		PWA *tat- [RGA]
WA	Fula	tat-
	Sherbro	rà
	Temne	-saa (Scott)
	Biafada	tet
	Wolof	nyɛ-ta
	Serer	tadak
GUR	Mööré	a ta
	Bwamu	tɪ̀
KWA	Twi	ɛsá
	Ewe	etɔ̃
	Fon	ɛtɔ̀
	Yoruba	ɛ̀ta
	Ishekiri	mɛ́ɛta
	Bini	ɛ̀há
	Epie	ɪ̀ɛ́à
	Nupe	ito
	Igbo	ɛ̀tɔ́, ɛ̀t'ɔ́
	Idoma	ɛ̀tá
EC	Efik	ɪ̀tá
	Tiv	-tár, ùtár, tyár
	Eloyi	elá
	Ufia	kʰɛcar
	Kutep	ɪ̀ta, ɪ̀tɛ
	Kambari	tà'ɛ̀tʷɔ́, -tà'ɛ̀tɔ̀
PB		*-tátɔ̀
PIjo		*tárɨ̀
33. buy		PWS *la, lia, lua (also 'sell')
GUR	Mööré	da
KWA	Twi	tɔ̃
	Yoruba	rà
	Igala	é-lɛ̀
	Bini	dé
	Epie	dɛ́

	Idoma	lá
	S. Idoma	rá
	Igede	rà
BC	Kutep	jab [/-b/ is de-voiced]
	Ufia	ɗɛ̀f

34. lick

WA	Fula (Pular)	lad^{y}ēde, lamɗ^{y}i^{n}dāde, 'lick the hands and fingers after eating' (Labouret, 1955). d^{y}ūde, 'hands'
	Fula	lāɔɔ, 'lick, suck', (Meinhof, 1912, p. 235)
KWA	GŪ (Dahomey)	la-mɔ GĀ lémɛ̄
	Yoruba	lá Bini lhlɔ́
	Igbo	lá, rá
	Idoma	píh, lh
PB		^{N}-lamba

35. tongue PWS ^{N}-lima [and ^{N}-dem ? RGA]

WA	Fula	ɗem-
	Biafada	bu-ɗɛɛma (Wilson)
	Baga Fore	lem
	Manoaanka	(n)-ɗɛmɛtɛ
	Banhum	bn-lɛmuc/i-
GUR	Mɔ̃ɔ̃ré	zɛlɛmdɔ (cp. No. 14 above)
KWA	Twi	tɔ̀krɔ̀mã́
	Ewe	hɖé
	Fon	ɖɛ̃
	Igbo	ílé, íré
	Nupe	ílé, íré
	Igbira	ɟrarɔ̀
	Bini	ɖf̃ɑ́ɖɔ̀ Epie ɟɖɔ̀mɖ
	Idoma (S.)	ígbílenyi
	Etulo	ɟdɛɔ̀

	Igede	ɛlélɛ
BC	Efik	é-démè Ufia rèdá'
	Jukun (Wukari)	nénè
PB		*-limi [-lem, -dem]

Westermann comments, 'An -a often comes into the etem: -lemi from -lami from -lima?'

36. hunt (n)

KWA	Ewe	ade
	Yoruba	ɔdɛ
	Igala	ɔdɛ
	Idoma	ɔté
	Igbo	ńtá (Abraham)

37. arrive

WA	Temne	der, 'come' (Scott)
KWA	Twi	du
	Ewe	dé
	Yoruba	dé
	Epie	té
	Efik	dí

38. say

	Fula	PWS *ká-, kán- [kà ? RGA] hāl- pl kāl- [See note p.72]		
WA	Temne	kana, 'to tell' (Wilson)		
	Sherbro	ŋhɔ́, 'talk' (Ladefoged)		
GUR	Bwamu	kà, 'cajole, flatter'		
KWA	Twi	kà	Gã	kɛ́
	Ewe	ká		
	Fon	xà	Yoruba	kà (idiomatic)
	Nupe	gɔ̀	Bini	xǎ
	Igbira	kà	Igala	kà
	Igbo	kà	BC Ogoni (Kana)	kue,
	Idoma	kà	" (Gokana)	kor, 'call'
	Akweya	hà	BC Tiv	khà
	Igede	yà	Plio	kɔ̀

39. count

KWA	Twi	kaŋ
	Yoruba	kà
	Isekiri	kà
	Bini	ká
	Idoma	ⁿkà
BC	Kambari	kyɛcɛ̀
PIjo		*kɪ̀ɛn

40. ring (n) PWB *-ka

KWA	Twi	ɛkàá
	Ewe	gà
	Fon	àlɔ̀kɔ́
	Yoruba	ɔrùka
	Igala, Idoma	ɔ̀lɪ̀kɔ́
	Igbo	ǫ́là
BC	Kambari	-kàwánɪ̀
PB		*-kata

Bini ɔ̀ɛ̀kɔ́

41. around, about; form curve

KWA	Twi	káhiri, 'head-pad'
	Yoruba	ká, yí ká, 'encircle'
	"	káàkiri, 'wander about'
	"	àɛ̀ùká, 'head-pad' (a handful of grass braided tightly into a circle)
	Idoma	èka, 'head-pad; circular wooden or braided reed base onto which round-bottomed pots are set'
	"	àka, 'wheel; anything round with open sides, especially the circular vine-binding of the ribs of a conical grass roof'
	"	àkɔ̀kɔ̀, 'clavicle, collar-bone' [àka/ɔ̀kɔ̀, 'neck']

	Bini	gă, 'surround'
42. coal, charcoal		PWS *-kà-, -kàn-, -kàl-
KWA	Ewe	àkú
	Fon	àkú
	Nupe	eka
	Idoma	àha
	S. Idoma	àha
BC	Tiv	íka-gh
	Ufia	ìkà, pl ràkàl
	Jukun (Takum)	kána
	(Wukari)	kú
	Kutep	íkyé
PB		*-kala, 'charcoal'
43. neck		PWS *-kʊ̀à
WA	Limba	kɔnti
GUR	Mɔ̃ɔ́ré	kɔ̃de, 'cut the throat'
KWA	Twi	kɔ́n Gã kùì
	Ewe	kɔ̀
	Fon	kɔ̀
	Nupe	kɔ̀rɔ̀
	Igbira	ɔrɔkɔ
	Idoma	ɔkɔ̀
BC	Ufia	rɛ́kkɔ̀, pl rákkɔ̀
	Kutep	ùkwɛ̀, pl àkwà
PIjo		*kɒ̀ngɒ̀
44. soap		PWS *kʊ́á-, -kʊ́án- ('Wanderwort')
KWA	Ewe	kɔ̃ɔ̀
	Yoruba	ɔkɔ̀tɔ̀, 'a poor type of soap' (Abraham)
	Nupe	ekɔ̀
	Idoma	ùkwɔ̀

45. one

WA	Fula	go', go'o	
KWA	Twi	ɔkɔ́	
	Ewe	ɖɔ̀kɔ́	
	Fon	ɖɔ̀kpɔ́	
	Yoruba	ɔkɔ̀	Bini ɔ́kpá
	Ishekiri	ɔkɔ̀	
	Idoma	ɔ́ɔ́kpó	
	Igede	ɔ́kpɔ́kpó	
BC	Jukun	kɔ́, 'be first'	
	Bɔ̀to [Obudu, Ogoja]	ɪkɔn	
	Bɔ̀te [Bekwara, "]	ɔ́kɔn	

46. cock

KWA	Twi	ɔkɔ́kɔ́	
	Ewe	kɔ̀klɔ̃tsí	
	Fon	koklo	
	Yoruba	ɔkɔ̀kɔ	
	Ifè (Togo)	ɔkɪ̀kɔ	
	Igala	aikɔ́	
	Igbo	ɔ́k^{h}ɔ̀ɔkpà	Bini ɔkpà
	"	ɔkɔ̨kɔ̀, 'chicken'	
	Idoma	ɔgwu, 'chicken; fowl'	
BC	Efik	-kɪ́kɔ̀	
	Jukun (Takum)	kuna	Ufia ɪ́ɖɔ́kɔ́ pl ɪ́ɖɔ́kɔ́
	" (Wukari)	kwɪ̀	
PB		*-kuku, 'fowl'	

47. toad PWS *-kual-

KWA	Twi	ɔpɔ̀tɔ̀rɔ̀	
	Ewe	ɔkpɔ́kplɔ́	
	Yoruba	ɔkpɔ̀lɔ́	Bini ɔkpɔ̀tó
	Bassa (Liberia)	kpɔ'ɔ̀	

48. frog

KWA	Yoruba	àkèrè
	Isekiri	ékèrá Bini ékìrí
	Igbo	àkụrị
	Idoma	àklé
	Igede	òkìrìhè

49. die PWS *kú, kúá, kúí

GUR	Mòòré	ki
	Bwamu	hí, hílū
KWA	Twi	wù
	Ewe	kú
	Fon	kú
	Yoruba	kú
	Igala	é-kwú
	Bini	wú
	Nupe	tsú; ekú, 'corpse'
	Igbira	sú
	Igbo	ŋwú
	Idoma	kwú
	Igede	gbú
BC	Efik	kpá
	Tiv	kpé Aten (Ganawuri) kú
	Ufia	ɓɓè
	Jukun (Takum)	wú
	(Wukari)	hú
	Eloyi	kpómò
	Kutep	cwu
	Kambari	kùwŏ
PB		*kûa

49b. kill same roots (Westermann) [? RGA]

GUR	Mòòré	ku
KWA	Twi	kù, kùm
	Ewe	wù

	Fon	hù	
	Yoruba	kpa	N.B.: gbé, 'perish'
	Igala	kpa	
	Bini	gbé	
	Nupe	wu	
	Igbira	wu̱	
	Igbo	gbú	
	Idoma	ŋmó	
	Igede	ŋwu	
BC	Efik	wòt	
	Tiv	wuà	
	Ufia	wɔ́l	
	Eloyi	ŋgbé	[ŋ = ŋm syllabic]
	Jukun (Takum)	gbɛ́	
	(Wukari)	bwɛ́	
	Kutep	wɛ̄	

50. market PWS *-kì

KWA	Ewe	àsì	
	Fon	àxì	
	Bini	èkì	
	Isoko	ékì	
	Idoma	olìhi	
	Nkúm (nr Ikom)	lìsi, pl (rare) àsi	
	Igede	ĩhĩ	
BC	Ogoni (Gokana)	kí (Brosnahan)	

51. yam PWS *-ki, -ku

MANDE	Dyula	ku	[Mali, N. of I. Coast]
	Bambara	ku	[Mali, upper Niger]
	Malinke	kū	[" Senegal val.]
	Soninke	ku	[N. Mali]
	Vai	kū	[Liberia, S.Leone]
	Susu	kū	[Guinea]
KWA	Late [Lètɛ]	édɛ̃wó	[A Guang language, N. of Accra]

	Yoruba	igu
	Ifè (Togo)	icu [from *-kiu ? Westermann]
	Igala	ɗcu
	Nupe	eci
	Igbo	ji
	Idoma	ɲhi
	S. Idoma	ɲsi
	Akweya	ici
	Igede	iju
BC	Eloyi	lúsú pl ísú
	Ufia	kétúɔ́' pl bétúɔ́'
	Jukun (Takum)	sura
	(Wukari)	sí
	Kutep	ɲkyír
		ɲcír (another dialect)

52. mother

WA	Fula		yāye [Labouret]	(Ladefoged)
	Sherbro	Serer yay	yǎ	(Ladefoged)
		Temne yà		
KWA	Yoruba		iyé, yèyé, iye	
	Igala		íye	
	Bini		íyé	
BC	Kutep		iyà	
	"		íyà, 'grandmother'	
	Jukun (Takum)		ye	
	Wukari)		yo	
PIjo			*yèngì	

53. say

	WA Kisi		sɔ́:, 'talk' (Ladefoged)
GUR	Mööré		yõla Fariba sɔ̃, 'tell'
KWA	Twi		sɛ̀
	Yoruba		sɔ̀
	Igbo		sị

54. belly — PWS *-pu

WA	Sherbro	pút, 'guts, entrails'
	Kissi	pu-re
	Baga Mboteni	pur
	Papel	p-po'/k-/i- (Wilson)
GUR	Mõõré	pugha Bariba núkùru
	Bwamu	pióhó
KWA	Twi	yh-fúnú
	Ewe	ʃo [ʃ is bi-labial]
	Yoruba	inú [ʔ]
	Ishekiri	inó
	Igala	éfù
	Igbira	ɲnɛ́
	Igbo	áfɔ́ Bini úwú, 'inside'
	Idoma	ìpú
	Igede (Ito)	epu
	" (Oju)	efu
	Etulo	ìfu
	Akweya	ẽndé
BC	Eloyi	ùbù pl ìbù
	Efik	ì-dìbí
	Kutep	rìshwu pl àshwu
	Jukun (Wukari)	fɪ, 'inside'
PB		*pû, 'stomach'

55. white — PWS *pù-

WA	Sherbro	púy
	"	puépué, '(very) light, clear'
	Temne	fu, 'clean'
	Limba	fufu, 'white'
GUR	Mõõré	fus, fusa, pududu, 'very wh.'
KWA	Twi	fúfú
	Ewe	fu
	Yoruba	fũfũ
	Ishekiri	fifẽ

	Bini	fwɔ̀fwa
	Epie	ḅrḭ̀rṵ̀
	Igbira	ɓvɔvụ
BC	Tiv	pipʰí
	Efik	ḥfíá

56. build (mud house); mould (pot)

WA	Pula	mah-, mā- (mud house)
	Wolof	mah, 'maçonner' (Mgr Kobès)
	Serer	mah, " (RP Ezanno)
GUR	Mööré	me, 'build; mould'
	Bwamu	mí, 'model' (incompletive)
		má, " (completive)
KWA	Twi	mã̀, 'to plaster'
	Yoruba	mɔ, 'build; mould'
	Ishekiri	ma, 'mould blocks'
	Bini	má, 'make pots or bricks'
	Igbira	mɛ̀, 'make'
	Idoma	mà, 'build; mould'
BC	Tiv	mèà, 'build; mould'
	Kambari	mɛ̀'â, 'mould (a pot)'
	Jukun	mi, 'build'

57. child; bear child; beget PWS *mu, muan-

WA	Balanta	mbe pl kmbe, 'child'
KWA	Twi	ɔbá, pl ɛmá, 'child'
	Ewe	mɔ, 'cohabit with; beget'
	Yoruba	ɔmɔ, 'child'
	Ishekiri	ɔma, "
	Bini	ɔmɔ́, "
	Epie	ɔmɔ́, "
	Nupe	ma (vb)
	Igbira	mà (vb)
	Igbo	mụ (vb)
	"	ụmụ, 'children'

	Idoma	mà, 'bear, beget child'
	Igede	ma, " " "
BC	Ufia	már, 'bear child'
	Tiv	màh, " "
	"	má-Ṛ, 'offspring'
	Jukun	mba, 'bear child'
	Kutep	mbè, " "
	"	ḿbè, 'child'
	Eloyi	ímé, pl émé, 'child'
	Kambari	māwū, pl mūwū, 'child' (ma-/N-cl); in gen. constr. mā pl mū)

58. mother — PWS *-má

WA	Fula	mamma
	"	mama, 'grandmother'
	Serer	ma:m, 'grandparent'
GUR	Mõõré	ma (Lade-foged)
KWA	Yoruba	màmà, mòmó
BC	Efik	mmá (vocativ.)
	Kambari	'ámà
PB		*mala

59. finish — PWS *ma, man-

WA	Sherbro	mán, 'to stop'
	"	má:ni, " "
	"	kú manì, 'finally'
KWA	Yoruba	...mó (follows other verbs)
	Idoma	mà (alone or after other verbs)
	Igala	mà (sentence final)
	Igede	myé
PB		*mala

60. not — PWS *mà

WA	Sherbro	ma (neg. imperative)
	Biafada	ma
GUR	Bwamu	má (adverb of negation)
KWA	Twi	M- (homorganic nasal)
	Ewe	ma
	Yoruba	má, máà
	Ishekiri	máà Bini má
	Igbo	mbà, 'No!'
	Idoma	-ámá (? Perhaps -á má. If so it belongs elsewhere.)
BC	Jukun	mbá (at end of all negative sentences)

61. lightning

WA	Fula	ma'-
	Sherbro	màlànmàlàn, myàmyàmì
GUR	Bariba	-màákínú
KWA	Yoruba	mɔnɔmɔnɔ
	Ifè (Togo)	màmà
	Igala	ɔmàmànyà
	Igbo	àmụmà
	Idoma	Olímànyà (vb)
	Nkúm	owoyímànyàŋà, 'rain lightninged'
BC	Kutep	ìmàm
	Kambari	màɗàtsâ (vb)
	"	ì-máɗátsú

62. know

GUR	Mööré	mi
KWA	Yoruba	mɔ
	Igala	mà
	Igbo	má
PB		*manya

63. water — PWS *-ni- + class affix *ma-

WA	Fula	ndiy-am
	Temne	ma- (prefix 'liquids')
		m-ɛŋt; am-ɛŋt
	Sherbro	mɛ́n
	Biafada	ma-mbiya
GUR	Mɔ̀ɔ́ré	kɔ̃m
	Bwamu	mɔ-nyumu
	Bariba	nĩm
KWA	Yoruba	omi — Basaa (Kru) ni
	Igala	ómi
	Bini	ɛmɛ
	Isoko	ame
	Epie	ɛmɪnɪ
	Igbo	mírí, mírí, míli, ɛmírí
	Igbira	ényí
	Idoma	ènyì
	Igede	enyi
	Etulo	ènì
	Akweya	ɪmbyh [-yh semivowel + h]
BC	Kambari	mínĩ (ma- class)
	Ufia	ɓányì
	Kutep	ámbyi
	Kfik	á-móŋ
	Kloyi	embíth
	Tiv	á-górɔ̂m (mân, demonstrative)
PB		*ma- (class prefix)
PIjo		ɓèndì

64. drink

WA	Temne	mun
GUR	Bwamu	nyamu, 'millet beer'
KWA	Yoruba	mu, (vb)
	"	amu, 'palm-wine'
	Idoma	mu, 'drink'(soup only)

	Igbo	mɛ́ɪ̯ 'palm-wine' (Green)
	"	hmɪ̯ɪ̯, " " (Swift)
	Akweya	ɛ́mɔ, " "
	Igede	ɛ́mu, " "
BC	Tiv	ma, mɔ, mə̀ (different parts of the verb system)
PB		*mûa

65. swallow PWS *mɪ̀, mɪn

WA	Pula	mɔf
	Sherbro	mín
GUR	Mööré	vɔlɔ
	Bariba	mwɛ
KWA	Twi	mɛ̀ne Bassa mana
	Ewe	mínú
	Fon	mí
	Yoruba	mì // ing)
	Igbo	mɪ̀, 'suck'(without swallow- mɪ̀rɪ̀, 'suck and swallow'
	Idoma	mlɛ̀
	Nkim (Cross River)	mlɛ̀
BC	Tiv	mbnà
	Kutep	mɪn
	Ufia	mɛ́l
	Eloyi	bɪ̀rɪ
PB		*mila
PIjo		*mɪ̀nɪ̀

66. fire PWS *-ná-

WA	Temne	n-ɛŋt (Wilson)
KWA	Yoruba	iná
	Isheshiri	uná
	Igala	úná
	Nupe	enɔ

	Igbira		ɨrá
	Bini		ɔrhɛ̀
	"		ɨrù (K. Asika. Melzian says 'louse')
	Idoma	ɔlá	
	Igede	ila	
	Akweya	ɔla	
	Etulo	ɔla	
BC	Kutep		ùrwa, pl ɔrwa
PB		*-lilo, -lila	

67. mother — PWS *-na, -ni

WA	Fula	'inna; nēne (vocative)	
	Temne	nā	
	Biafada	nā	[and many other languages]
GUR	Bwamu	nu	
KWA	Twi	ɔná	
	Fon	nɔ̀	
	Ifè (Togo)	ínà	
	Ishekiri	nénè,	'grandmother'
	Isoko		óni
	Nupe	ɔná	
	Igbira		ɔnyí
	Igbo	íné	
	Idoma	éné	
	Igede	ena	
	Akweya	ene	
	Etulo	ɛnɛ	
BC	Eloyi	éné,	pl ábéné
	Ufia	énéné,	'our mother' (special form)
	Jukun	nă	
PB		*nina, -ni	

68. four	PWS ⁿ-na	-ni	
WA Fula	nay-		
Temne	-aŋls		(Wilson)
Gola	-na		"
Baga Pore	-noŋ		"
Manoonka	-nan		"
GUR Mõõré	a nãse		
Bwamu	náá		
Bariba	hné		
KWA Twi	hnán		
Ewe	ɔnɔ		
Fon	ɔnɛ		
Yoruba		ɔrí	
Ishekiri	méré		
Igala	ɔlɔ		
Bini	ɔné		
Epie		ɔníi	
Nupe		gúni	
Igbo	ɔnnó		
Idoma	ɔnɛ		
Igede	inɔ̄		
Akweya		ɔɔnyi	
Etulo	ɔnɛ		
BC Efik	ɔnàŋ		
Ogoni		tánì	
Tiv		ɔnyíì	
Ufia	kúnnáŋ		
Kutep	ɔnjɔ		
Jukun	áyɔ́ná		
Kambari	nɔ́shì		
PB	ⁿ-na		
PIjo	ⁿɔné		

69. sun

WA	Fula	nã-; nãᵑge (Klingenheben)	
	Biafada	bu-nage	(Wilson)
	Cobiana	ba-neegi	"
	Papel	ɔ-noo'	"
	Diola Diembereng	ta-naak	"
KWA	Yoruba	oòrù	Gã hùlù
	Igala	ólù	
	Igbo	áŋwɛ́	
	Idoma	ènò	Bini ɔŋwè
	Igede	ɛnụ	
BC	Eloyi	ɔnu	
	Tiv	lyáŋgó	Ogoni (G) gbei
	Jukun (Takum)	yúnu	
	(Wukari)	yúnu	
	Ufia	ŕígwé,	pl rágwé
KWA	Ewe	ghè	
	Fon	hwè	

70. cow PWS ᴺ-na-, -nak-

WA	Fula	na', nag-	
	Sherbro	ná	
	Temne	ɔ-na	(Scott)
GUR	Mõõré	na	
	Bwamu	nàà	
KWA	Nupe	nɔ̀nkó	
	Yoruba	ẽẽlá,	'humpless cattle'
	"	erõlá,	'bull'(1)
	Ifè (Togo)	lalá	
	Igala	okunɔ	
	Ishekiri	ímìlá	
	Bini	émìlá	
	Idoma	ènà	
	Igede	ɛnà	
	Etulo	hdà	

BC Efik enaŋ

Jukun (Takum) nè

(Wukari) nà

Kutep ìndàg, pl àndàg

Kambari -nầ

S.W. Kambari -nákà

[(1)The tones of ɛrɔ̃lá are strong evidence against the suggestion that this form is derived from ɛrɔ̃ ílá, 'big animal'.

Westermann lists 55 languages which contain the -na root, covering every sub-family of Niger-Congo.]

71. that, the PWS *la, -na

GUR Bwamu na

KWA Twi nó

Ewe lá

Fon élɔ, 'this'

" éna, 'that'

Yoruba /lɔ́/ ([n] is an allophone of /l/. /lɔ́/ is sounded as [nɔ́].)

Bini nà

Igala lɛ

Idoma (S.); (W.) ólɔ̀; ónɔ̀, demonstrative used in reported speech

" élɔ̀, 'all of them'

S. Idoma ànɛ ma, 'this'

" " ólɔ̀ ma, 'that'

BC Efik órò

Tiv là ~ nà

72. person; human PWS *-ni-

WA Temne ɔ-wuni, pl aŋ-fɔm (Wilson)

Sherbro nɔ, pl àmya, àmyin

GUR Mɔ̃ɔ̃ré nɛ

Bwamu nìi

KWA Twi ní Bassa (Kru) nyɔ̃

Ewe amɛ

Yoruba ɛni; ènìyàn

Ishɛkiri ɔnɛ

Igala ónɛ̀

Idoma ɔnyɛ̀, 'who?'

" ɔnyɔ̀ɔnyɛ̀, 'everybody'

Igede ɔŋɔ̄, pl aŋɔ̄

Igbo ónyé

BC Ufia ónɔ́, pl ɓánɔ́

Kambari vǫ́mmā́, pl ɓ́mā́ = ā́mā́

Aten (Ganawuri) anyí, pl nínyi

73. in, at PWS *-ni

WA Kisi nin

KWA Yoruba /lí/ (heard as [ní])

Nupe nínmí

Idoma l-

Igede n-́

PB *-ni

74. be (identifier) PWS *-ni

GUR Bwamu ná (identity and presence)

KWA Twi né

Ewe nyé

Yoruba /lí/ (heard as [nì])

Ishɛkiri ɛ̀ɛ̀

Idoma nɛ̀

Igede -ŋì

Bini ɾé, rì-; nɔ́

PB *-li

75. elephant PWS *-ni-

WA Fula nyĭ-, nyĭb-, nyĭw- (Arnott)

Konyagi i-nyi

Gola o-nyā̀ (from *-nia (Westermann))

Serer nyik

KWA	Ewe	nyí
	Yoruba	eǫ́
	Bini	èní
	Igbo	ényí
	Idoma	ìnyì [archaic]
	Ñkúm	ènyì
	Igede	ínyí
BC	Ogoni (Gokana)	nɨ́
	Kutep	ìnjì, pl ànjì
	Ufia	ényí, pl ínyí
	Jukun (Takum)	wúyɨ́
	(Wukari)	wìyɨ́

76. tooth — PWS *-ní, -nín

WA	Fula	nyI'y-
	Serer	nyik (Westermann)
	"	nyiny (or ñiñ) (Ezanno)
	Bijago	ka-nyi/ŋa
	Papel	p-nyiɪ́
GUR	Mõõré	nyẽn
KWA	Yoruba	eǫ́
	Ishekiri	eji
	Igala	ényí Ñkúm lèyih pl àyih
	Igede	eŋére
BC	Tiv	-nyí-
	Jukun (Wukari)	yɨ́, 'front tooth'
	Kutep	ìnyi, pl ànyi
PB		*-ghino

77. mouth — PWS *-nu-, -mua

WA	Fula	humu-, hundu-
	Kisi	sundo
GUR	Mõõré	nõ
	Bariba	nɔɔ, pl nɔsu
KWA	Twi	ànó
	Ewe	nṹ
	Fon	nú
	Yoruba	enu
	Ishekiri	eɱ̀ṹ
	Igala	álu
	Bini	ùnú
	Isoko	únu
	Epie	ùkónúnù
	Idoma	ùkónù
	Nupe	misṹ (cp. Fula, Kisi)
	Igbira	irenu
	Igede	ɔnú, pl enú
	Etulo	ùnḍuù
BC	Efik	ínùà
	Jukun (Takum)	nù
	(Wukari)	nṵ́
	Kambari	ù-nṵ̀, pl n-nṵ̀
	Kutep	injwu, pl anjwu
PB		*-mua

78. say

KWA	Ahlɔ (Togo)	nú
	Ewe	nú
	Yoruba	ní
PB		*-neghena, -nena, 'speak'

70

79. five PWS *-nú- [-tanu ? ROA]

WA	Kisi	ŋwenu	
	Krim	enuen	
	Temne		tamath (Wilson)
	Serer		betak
GUR	Mõõré	a-nū	
	Bwamu	hɔnú	
	Bariba	nɔɔbù	
KWA	Twi	ànúm	
	Ewe		àtɔ́
	Fon		àtɔ̀ɔ́
	Yoruba	àrɔ́	
	Isekiri	máarú	
	Igala	àlu	
	Idoma (Nkim, Yala)	àruɔ	
	S. Idoma	àlɔ	
	Central Idoma	àhɔ	
	Igede	eru	
	Akweya	àràɔ	
	Nupe		gú-tsú
	Epie		ìwúónù
	Igbo		ìsɔ́, ìsɔ́
	Bini		ìsɔ́
	Etulo		àda
BC	Kambari		tɔ́wù, -tɔ̀
	Kutep		ìtsɔ́ŋ
	Efik		ì-tíbɔn
	Tiv		ùtsàn, ùtsɔ̀
	Jukun (Takum)		ásɔ́nà
	(Wukari)		átswɔ́nà
PB			*t^{y}ano [*-tánò ?]
PIjo			*ɛ́ŋɔ́

80. animal; meat; muscle

PWS *-nìàm, -nám-

WA	Fula	nyamdu-, 'food'; nyam, 'eat'
	Wolof	nyam, 'food; to taste'
	Serer	nyam, " ; to eat
GUR	Mõõré	nɔm, 'meat'
	Bariba	yaa
KWA	Twi	ɛnám, 'meat'
	Ewe	ànù, 'animal; meat'
	Fon	ìnù
	Yoruba	erɔ̃, 'animal; meat; muscle'
	Ishekiri	ɛrɛ̃
	Igala	́la
	Bini	ɛ̀ɖ́ɛ̀
	Epie	ànàmɔ̀
	Nupe	nɔkɔ̀
	Igbo	ánụ́
	Idoma	éné- (in énébé, 'muscle'; see No. 7)
BC	Efik	ùnàm
	Kambari	n-nhmã, pl ɪ̀-nhmã
	Ufia	́rié
	Tiv	ìnyàm, pl ínyáᾶ
	Zulu	inyama

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[N.B.: the references on this page are to paragraph numbers.]

NOTE

The PWS *ká-, kán- root, 'say' (Paragraph 38)

The inclusion of Fula forms in this paragraph calls for comment, despite the fact that they are supported in the West Atlantic group by Temne kana 'tell' and Sherbro ŋhɔ́ 'talk'.

Labouret (1952, p. 254) gives hālde 'parler, dire', hāla (-ka), pl halād'i 'parole, discours, récit, affaire.'

Klingenheben (1963, Section 23 ('Die ka- Klasse') p. 105) writes: 'hāla -- hālāji "word, speech, advice, affair" (from Arabic qāla "to speak", by way of the verb hāl-, pl kāl-, which is not used in Yola), kalima - kalimāji "word"...' [My translation. RGA.]

I consulted Mallam Ibrahim Mukoshy, who is at present at the Institute of African Studies, University of Ibadan. He is from Sokoto and speaks both Fula and Arabic. He accepts hāl- 'speak', but does not know the form kāl-. He accepts kalima and kalimāji, however. It is on the strength of this that I cite the forms hāl- and kāl- in Paragraph 38. (See also the Toucouleur name 'Halpularen,' Note 18 above.)

The forms cited from the Ogoni languages are from Wolff (1964, p. 45). Note that Ogoni-Eleme has wii 'call'. (See Paragraph 14 above!)

It seems unlikely that Fula has borrowed this root from Arabic, since the words which it forms belong to the basic vocabulary and since it has reflexes - or 'look-alikes' - in languages of four sub-families of Niger-Congo.

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Postscript

It may be well to emphasize that the foregoing list is not intended to be either definitive or exhaustive. It could be greatly extended, and further study will certainly produce many changes in the items included and in their arrangement. The reasons for putting in particular words are not always obvious, and some inclusions are much more secure than others. For example, the adding of Igbo ɦkw^{h}ɗ to the 'egg' list is really no more than a hunch. I am emboldened to it by the -k- of Bini ɦkɛ̃, by the resemblance of this form to Igala ɗgɛ, and by the nasalization of the second syllable of ɦkw^{h}ɗ, which is a point of resemblance with the Yoruba ẹyĩ as well as with the Bini form. This association is strengthened by the -n of the Efik form, the -rɛ of the Ufia form and the -l of the Mɔ̀ɔ́rɛ́ form. The fact that not every Igbo dialect has the nasality that I find interesting in the word for 'egg' [ɦkwɗ and ɦkw^{h}ɗ are often heard in other places] simply points up the importance of dialect studies for the sound development of these comparisons.